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ABSTRACT

This 493-item bibliography covers the gamut of change in society. Emphases are placed on the topics of educational change, innovation research, administrative change, organizational change, and social and political change. The document, divided into three parts, includes 176 books, 191 articles in books, and 126 papers and speeches. Also included are indexes of anthologies, authors, and titles. A related document is EA 003 116. (RA)

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**AN ANNOTATED
BIBLIOGRAPHY OF THE
LITERATURE ON CHANGE**

by

Louis M. Maguire

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JULY 1970

**U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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PREFACE

This annotated bibliography had its genesis in the notes of the writer as he was investigating and reviewing the literature on change. A result of the investigation and review was a publication of Research for Better Schools, Inc., entitled Observations and Analysis of the Literature on Change. While the writer was preparing this publication, it was suggested that the background information and sources for the review be shared with others who are interested in the topic. Thus, it was decided to prepare a companion volume to the former publication.

The annotations in the bibliography are not intended to be complementary in the sense that each annotation represents an abstract of the entire work. Some annotations contain a general abstract, while others do not and cite specifics in the work. As stated previously, the annotations were derived from the notes the writer took as he was investigating and reviewing the literature on change. It is hoped that the sharing of this information will be of benefit to others interested in the topic.

The bibliography contains no subject classifications on the assumption that such classifications are rarely helpful to the reader. Magazine and journal articles are not included in the bibliography, but they will be included when the bibliography is updated. If a reference was taken from ERIC (Educational Resources Information Center), the ERIC accession number has been placed in brackets at the end of the citation.

The writer wishes to thank the following staff members of RBS for their assistance in identifying and securing material for inclusion in the bibliography: James Becker, Margaret Jones, Frederick Tanger, Sanford Temkin, and G. Baker Thompson. Special thanks is given to Elenore Pritchard for her editorial assistance in preparing the manuscript.

L. M. M.
May, 1970

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Abraham, William I. Annual Budgeting and Development Planning.

Washington, D. C.: Center for Development Planning,
National Planning Association, 1965.

The author discusses the need for coordination between the separate, but related, functions of planning and budgeting so that implementation of plans can be effected.

An Action Research Program for Organization Improvement. Ann Arbor, Mich.:

The Foundation for Research on Human Behavior, 1960.

This book, which refers to Shepard and Blake's work at ESSO, describes a sensitivity training approach to behavioral change in formal, hierarchical organizations...

Adelson, Marvin, et al. A Pilot Center for Educational Policy Research.

Part I. Santa Monica, Calif.: System Development Corporation,
February, 1968. (ED 014 622)

This book postulates the establishment of a network of centers which would focus on two crucial relationships, the first of which exists between education and other vital concerns of the individual and society, and the second between those contemporary policies, plans and commitments which are related to education, and their effects on future conditions.

Adkins, Winthrop R., Sidney Rosenberg, and Timothy P. Dineen. Development of a Social Change Methodology. Brooklyn, N.Y.: Training Resources for Youth, Inc., March, 1967. (ED 012 945)

Project TRY is presented as a program designed to provide six hundred youths between the ages of seventeen and twenty-one at the Bedford Stuyvesant High School with a comprehensive educational environment which would enable them to learn social, vocational, and personal skills. The authors feel that Project TRY is unique because it emphasizes the creation of a mechanism for the orderly collection, evaluation, and feedback of information directly related to the educational activities within the project, thus facilitating appropriate operating decisions and project modifications.

Agger, Robert E., and Marshall N. Goldstein. Educational Innovations in the Community. Eugene, Oreg.: University of Oregon, 1965.
(ED 010 164)

The authors have studied the impact of school improvement projects on two different communities over a period of time. In this work, they present an exhaustive case study based on their findings, and an analysis dealing with various aspects of community orientation with regard to schools and of community acceptance of change.

- Alkin, Marvin C. Toward an Evaluation Model: A System Approach. Los Angeles, Calif.: Center for the Study of Evaluation of Instructional Programs, University of California, August, 1967. (ED 014 150)
The author describes six elements of the evaluation model at the school district level.
- Anthony, Robert N. Planning and Control Systems: A Framework for Analysis. Boston, Mass.: Division of Research, Graduate School of Business, Harvard University, 1965.
Strategic planning, management control, and operational control are differentiated.
- Archer, N. Sidney, Samuel M. Sanzotto, and Martin J. Higgins. Administrative and Instructional Adjustments Resulting from the Use of Programmed Materials. Harrisburg, Pa.: Pennsylvania State Department of Public Instruction, 1964. (ED 003 203)
From a survey of four hundred administrators, teachers and researchers, the authors tentatively conclude that, regardless of the material support and instructional techniques available to the teacher, the quality of the interpersonal relationship is the most important factor in the learning process. Other findings and conclusions are also reported.
- Argyris, Chris. Interpersonal Competence and Organizational Effectiveness. Homewood, Ill.: Dorsey Press, 1962.
Argyris postulates that changes, if they are to be permanent, must begin "at the top." He points out that the values which dominate large organizations are primarily impersonal and task-oriented; humanistic and democratic values are lacking. Thus, non-authentic relationships which are phony, static, non-supportive, and coercive and the resulting interpersonal incompetence, conflict, lack of trust, conformity, and rigidity can develop.
- Barnard, Chester I. The Functions of the Executive. Cambridge, Mass.: Harvard University Press, 1962.
Barnard views executive work as the specialized work of maintaining the operation of the organization, not as the work of the organization per se. He feels that the effectiveness of cooperative systems depends almost entirely upon the invention or adoption of innovations with regard to specialization. The primary aspect of specialization exists in the subdivision of purpose or general ends into intermediate or detailed ends which make it possible to achieve the more remote goals.

Barnett, H. G. Innovation: The Basis of Cultural Change. New York: McGraw-Hill Book Company, Inc., 1953.

The author defines innovation as any thought, behavior, or thing that is new because it is qualitatively different from existing forms. He presents a detailed exegesis on change from an anthropological point of view.

Barson, John, and Gardner M. Jones. A Procedural and Cost Analysis Study of Media in Instructional Systems Development. East Lansing, Mich.: Michigan State University, September, 1965. (ED 011 959)

The book includes the description of a study which was conducted so that the factors contributing to successful media-innovation and instructional development could be identified. It seeks to establish guidelines to help others carry out necessary changes in these fields.

Bear, William (ed.). A Research Project to Identify the Need for and Feasibility of Regional Educational Media Research Organizations with a Regional Research Improvement Orientation. Salem, Oreg.: Oregon State Department of Education, April, 1962. (ED 003 631)

This report describes the manner in which the study was conducted.

Beeby, C.E. Planning and the Educational Administrator. Netherlands: UNESCO, International Institute for Educational Planning, 1967.

Educational planning is defined as the exercising of foresight in determining the policy, priorities and costs of an educational system, having due regard for economic and political realities, for the system's potential for growth, and for the needs of the country and of the pupils served by the system. The author combines planning, adoption and execution, even though he feels that these elements may be separated for analytical purposes. He views political judgement as the heart of planning. He also discusses the functions of the administrator in the various phases of planning.

Bennis, Warren G. Bureaucracy and Social Change: Anatomy of a Failure. Cambridge, Mass.: Massachusetts Institute of Technology Press, 1963.

The author describes and analyzes an organizational change effort undertaken by a Swiss industrial social psychologist in an international Swiss firm. The change agent focused on sensitivity training, and the dynamics of individual and group behavior.

Bennis, Warren G. Changing Organizations. New York: McGraw-Hill Book Company, 1966.

Bennis feels that bureaucracy is incapable of appropriate responses to a turbulent environment. The author deals with two concerns which arise from this incapacity: the first is a research problem which he calls "knowledge utilization"; the second is a training problem. He also differentiates seven types of change on the basis of the change agent - client system relationship involved in each case.

Bennis, Warren G., Kenneth D. Benne, and Robert Chin (eds.). The Planning of Change. First Edition. New York: Holt, Rinehart and Winston, 1961.

This is a comprehensive book of readings on such topics as planned change, change agents, change strategies, etc., with an emphasis on group dynamics and social psychology.

Bereday, George Z. F., and Joseph A. Lauwerys (eds.). Educational Planning. The World Year Book of Education 1967: London, England: Evans Brothers Limited, 1967.

This book presents a general overview of planning theory as applied to educational organizations.

Bhola, Harbans S. Innovation Research and Theory. Columbus, Ohio: School of Education, Ohio State University, 1965.

The book contains many hard-to-find definitions which are related to change, and presents an extensive survey of the field.

Bhola, Harbans S., and Virgil E. Blanke (eds.). A Report of Conference on Strategies for Educational Change. Columbus, Ohio: Research Foundation, Ohio State University, September, 1966. (ED 012 376)

The issues, problems, and areas to be studied in planning educational change are reported, and an abstract of each paper presented at the Conference is also included.

Blau, Peter M., and W. Richard Scott. Formal Organizations. San Francisco, Calif.: Chandler Printing Company, 1962.

In focusing on the nature of bureaucratic organizations, the following four types of formal organizations are discussed:

(1) mutual-benefit, (2) business, (3) service and (4) commonweal.

Bonham, George W. (ed.). New Designs for Liberal Arts Colleges. Workshop Conferences to Foster Innovation in Higher Education. Yellow Springs, Ohio: Union for Research and Experimentation in Higher Education, 1967. (ED 014 305)

After general remarks on innovations in education over the years, the programs of six new liberal arts colleges are described by representatives of these institutions.

Branch, Melville C. The Corporate Planning Process. New York: American Management Association, 1962.

Three principles of planning are put forth:

(1) The scope of realistic planning cannot exceed the range of activity or the consideration of the entity within which it is formulated, for which it is intended, and by which it is implemented.

- (2) Comprehensive planning for any entity is a primary responsibility of its chief executive.
- (3) Without active support of the chief executive, directly or indirectly applied, planning will fail or at best fall short of its potential contribution.

Brickell, Henry M. Organizing New York State for Educational Change. Albany, N. Y.: State Education Department, 1961.

Brickell presents a "theory-into-practice" model for educational change which tries to interrelate the following processes:

- (1) program design, (2) evaluation through field studies, and (3) dissemination through demonstration and re-education.

Burns, Tom, and G. M. Stalker. The Management of Innovation. London: Social Science Paperbacks, Tavistock Publications, 1966.

This book presents case studies of planned changes in industrial settings.

Campbell, Vincent N. Learning: From R-M Theory to Educational Planning. Palo Alto, Calif.: American Institute for Research, November, 1963. (ED 014 916)

In this theoretical paper, Campbell attempts to combine familiar psychological variables in a new system in which the principal constraints are Representation (R), a unit of cognitive activity, and M-value (M), a motivational dimension which measures the hedonistic value of R. This theory implies that repeated encounters with approximately the same situation will allow the R-values to become more predictable as smooth behavioral sequences develop.

Campbell, Vincent N., and David C. Markle. Identifying and Formulating Educational Problems. Berkeley, Calif.: Far West Laboratory for Educational Research and Development, 1968.

The authors present a detailed exposition on the identification of need and the formulation of problems. They also present criteria for the adequate definition of problems.

Carleton, R. E. (ed.) Catalog of Educational Innovations in the Oklahoma Public Schools. Oklahoma City, Okla.: Oklahoma State Department of Education, 1967. (ED 014 368)

One hundred eighteen instructional innovations covering seventy-five Oklahoma school districts are described in terms of background information, implementation, and evaluation. The material in this publication was chosen either because it presented a completely new idea or, more commonly, because it presented some innovative means of implementing a familiar idea.

Carlson, Richard O. Adoption of Educational Innovations. Eugene, Oreg.: University of Oregon Press, 1965.

From an expanded social context, Carlson describes the role of the superintendent in the adoption of innovations by local school districts.

Carlson, Richard O. Executive Succession and Organizational Change. Danville, Ill.: Interstate Printers and Publishers, Inc., 1962.

Carlson's data show that place-bound and career-bound superintendents tend to perform the executive role in different ways. The place-bound individual tends to maintain the status quo of the school system, while the career-bound individual tends to change the school system.

Carpenter, C. R., et al. (eds.). A Research Report on Operational Plans for Developing Regional Educational Media Research Centers. University Park, Pa.: The Division of Academic Research and Services, Pennsylvania State University, April, 1962. (ED 003 632)

This book investigates the feasibility of establishing a number of regional educational media-research centers with a programmatic orientation.

Carroll, John B., and Allan B. Ellis. Planning and Utilization of a Regional Data Bank for Educational Research Purposes. Cambridge, Mass.: Laboratory for Research in Instruction, Graduate School of Education, Harvard University, December, 1965. (ED 003 480)

In August of 1964, Harvard Graduate School of Education began a study to investigate the feasibility of establishing a regional data bank for educational research purposes. The plan included a series of conferences of educators to determine what information such a data bank should contain, and what form it should take.

Carter, L. F. From Research to Development to Use. Santa Monica, Calif.: System Development Corporation, February, 1966.

Carter indicates how little and how slowly psychological and educational research has influenced educational practice. He cites some results of research by the Department of Defense which indicates that the successful implementation of a research idea is most often accomplished by the same people and in the same laboratory involved in the original discovery. He conjectures that if part of the research staff participate in developmental activities, and if some of the development staff engage in research, a blending of efforts embodying that concept of the process involved in the utilization of research-knowledge will result.

Castetter, William B. Organizational Change in Pennsylvania's School Administrative Units. Danville, Ill.: Interstate Printers and Publishers, Inc., 1966.

In placing emphasis on effecting organizational change through planning, Castetter explains the impact of the organizational structure, the board of education, the superintendent, the school principal, and administrative behavior.

Challenge of Curricular Change. Princeton, N. J.: College Entrance Examination Board, 1966.

This work explains the various aspects of curricular reform.

Chamberlain, Neil W. Private and Public Planning. New York: McGraw-Hill Book Company, 1965.

Planning is viewed as the systematic management of assets. It involves the following major supporting activities: (1) the identification of the primary objectives, in the pursuit of which assets are managed, (2) the integration of the various strategic streams of decisions which are necessary if assets are to be converted to achievement of the objectives posed, and (3) time considerations, both present and future. The managerial function demands two types of coordination: technical and staff; planning deals with both. Three principal aspects of the planning process are the following: (1) ideological, (2) technical and economic, and (3) organizational and political.

Chandler, Alfred D., Jr. Strategy and Structure. Cambridge, Mass.: Massachusetts Institute of Technology Press, 1962.

Chandler defines "strategy" and "structure" in terms of their relationship to organizational change and growth. Strategy involves the determination of long-range goals as well as the planning and carrying out of methods to achieve these goals and to assure organizational growth. Structure is that organization devised to administer the enlarged and expanded activities resulting from the strategy. It is, therefore, reasonable to assume that eventually the configuration of the structure will be dependent upon the strategy. Both strategy and structure are dependent upon the application of the resources of the enterprise to market demand. Structure involves the integration of these resources with present demand; strategy is concerned with the distribution of resources to meet future, or anticipated, demands.

Christiansen, James E., and Robert E. Taylor. The Adoption of Educational Innovations among Teachers of Vocational Agriculture. Columbus, Ohio: Department of Agricultural Education, College of Agriculture and Home Economics, Ohio State University, 1966. (ED 016 783)

This study attempts to determine the relative influence of selected sources of information which affect the adoption of specific educa-

tional innovations among experienced vocational education teachers in Ohio. It tries to apply the stages of the rural sociology diffusion model.

Coleman, James S., Elihu Katz, and Herbert Menzel. Medical Innovation. New York: The Bobbs-Merrill Company, Inc., 1966.

This work investigates the diffusion of a new drug using the five stages of the rural sociology diffusion model: awareness, interest, evaluation, trial, and adoption.

Coney, Robert, et al. Educational R & D Information System Requirements: A Task Force Report. Berkeley, Calif.: Far West Laboratory for Educational Research and Development, March, 1968.

The task force was set up to determine and define the content and scope of an information system which could assist local school districts in locating and using the results of research and development in education. This report presents the outcome of the discussion and an analysis of the following questions: What is the problem? What are the existing conditions? What might constitute a model system? What are the practical possibilities? What system components are most needed at the present time?

Connor, Desmond M. Strategies for Development. Ottawa, Canada: Development Press, 1968.

Strategy is defined as specific and manageable approaches inducing a process which will lead to desired improvements in the structure and functioning of a group or community. Development can be induced by the following means: (1) resources; (2) technology; (3) knowledge and beliefs; (4) values and sentiments; (5) goals and felt needs; (6) norms; (7) position and roles; (8) power, leadership and influence; (9) social rank; (10) history; and (11) space relations.

Cook, Desmond L. Participant Follow-Up Study. The PERT Lectures: A Case Study in Knowledge Dissemination and Utilization, Volume II. Columbus, Ohio: School of Education, Ohio State University, August, 1966. (ED 010 372)

Two of the major findings of this study report that (1) the audience consisted of persons who voluntarily attended the lectures out of curiosity, but whose professional interests did not lie exclusively in the area of research and development, and (2) informal communication between colleagues is more important than formal techniques in creating awareness of dissemination.

Cooper, Joseph D. The Art of Decision Making. New York: Doubleday and Company, Inc., 1961.

Some of the principal influences and constraints on decisions are outlined and discussed.

Corey, Stephen M. Helping Other People Change. Columbus, Ohio: Ohio State University Press, 1963.

Corey deals with the philosophical problem of the desirability of promoting deliberate, planned change in a democratic social order. He appears to feel that the means used, rather than the ends sought, are important.

Culbertson, Jack A., Paul B. Jacobson, and Theodore L. Reller. Administrative Relationships: A Casebook. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1960.

The authors discuss ten assumptions concerning change.

Curle, Adam. Planning for Education in Pakistan. Cambridge, Mass.: Harvard University Press, 1966.

The author reports his experience with the Planning Commission in Pakistan, where the pressure of work precluded reflection on underlying policy and its implications.

Curriculum Improvement and Educational Development. Paris, France: Organization for Economic Co-Operation and Development, 1966.

The book discusses objectives of educational development and the factors responsible for change. Because curriculum development is seen not only as a function which requires permanent national agencies to deal with it but also as an integral part of educational development policies and educational planning, various countries are introducing new agencies for research and development.

Cypher, Irene, et al. A Project to Improve the Dissemination of Information about New Instructional Materials and Their Uses in Education in Schools within a State. East Meadow, N.Y.: New York State Audio-Visual Council, August, 1960. (ED 003 728)

This study shows the various ways in which dissemination of information concerning instructional material needs to be improved in New York State. However, neither the manner in which this improvement can be effected nor the feasibility of testing the various channels which might implement this change are discussed.

Dale, Ernest. Planning and Developing the Company Organization Structure. New York: American Management Association, Inc., 1957.

Dale indicates that, since the size and problems of companies are continually changing, management must learn how to adapt the organization to these changes. This may be done by analyzing the problems that arise at various stages of company growth, the formulation of objectives, the delegation of responsibility, the span of control, the role of the staff assistant and specialist, committee work and coordination, decentralization, and reorganization. Dale feels that basic company objectives should determine

not only the basic company functions but also the division of work, and that the organization structure should give the personality factor greater consideration.

Davis, Richard Howard. Personal and Organizational Variables Related to the Adoption of Educational Innovations in Liberal Arts Colleges. Chicago, Ill.: University of Chicago, 1965. (ED 003 685)

This book reports the results of a study of two liberal arts colleges, one of which is noted for the adoption of many innovations, the other for adopting few innovations. The following hypotheses were tested in this study:

- (1) Full time faculty members and administrators in both types of liberal arts colleges do not differ significantly in awareness of educational innovations. CONFIRMED.
- (2) The pattern of personality variables of non-influentials among administrative officials and full-time faculty members at a liberal arts college does not differ significantly from that of influentials within the same groups. CONFIRMED.
- (3) The set of personality variables of influentials in a highly innovative liberal arts college differs significantly from that of influentials in a similar college which is only slightly innovative. NOT CONFIRMED.
- (4) Organizational norms are perceived as more "recommended" and "permitted" in a highly innovative college, in a low-innovative college as more "obligatory" and "prohibited". PARTIALLY CONFIRMED.

Davis, Russell G. Planning Human Resource Development. New York: Rand McNally and Company, 1966.

According to Davis one cannot plan education in one-to-one correspondence to work force requirements, because the relationship between education and production is too indirect. He also discusses many statistical and mathematical models for educational planning.

Deming, Robert H. Characteristics of an Effective Management Control System in an Industrial Organization. Boston, Mass.: Division of Research, Harvard Business School, 1968.

The author tries to apply a planning and control system to one firm. His research design involves the description of the firm and the subsequent submission of his description to a panel of experts for reaction and comments. The author concludes that planning in business may not be as sophisticated as some people think, and that the planning process is most useful when it includes a fairly specific implementation strategy for carrying out the long-range plan.

Donley, Donald T., Alfred J. Cali, and Robert L. Lorette. The Investigation of a Method for the Dissemination of Educational Research Findings to Practitioners. Albany, N. Y.: Capital Area School Development Association, State University of New York at Albany, 1965. (ED 003 388)

This report is in many respects a case study of an evolving project rather than a tightly statistical, quantitative assessment of the impact of an innovative practice. The authors state that dissemination can be an effective device for improving education.

Eboch, Sidney C. (ed.). Novel Strategies and Tactics for Field Studies of New Educational Media Demonstrations. Columbus, Ohio: Ohio State University, 1965. (ED 003 120)

The appendices to this work include a research taxonomy, choices and dilemmas in change, the functions of the research-and-development process, and change strategies.

Economic and Social Aspects of Educational Planning. Paris, France: UNESCO, 1964.

The main concern of planning is the institution of an effective system so that resources can be utilized to their best advantage in the achievement of given ends.

Educational Planning. Geneva, Switzerland: International Bureau of Education, 1962.

In this work, each country describes its educational planning according to the following topics:

- (1) Types of planning.
- (2) Agencies responsible for educational planning.
- (3) Preparation, implementation and evaluation of plans.
- (4) Training of staff to carry out planning.
- (5) International action.
- (6) Plans for the future.
- (7) Miscellaneous.

Educational Program: Coordination and Development. Iowa Community Junior College Workshop Report. Iowa City, Iowa: Office of Community College Affairs, University of Iowa, 1967. (ED 014 300)

The report describes the following general topics:

- (1) The use of a core program to provide a common experience for all students before they decide between an occupational course or higher level of preparation.
- (2) The employment of consultants in early planning stages and the related use of surveys in the development of the instructional program.
- (3) An examination of possible uses of electronic data processing for routine data collection and dissemination tasks.
- (4) A systems approach to the instructional program with the analysis of the course to define objectives, the framing and sequencing of the instructional modules, and the evaluation of the learner's response with regard to specified goals.

Eidell, Terry L., and Joanne M. Kitchel (eds.). Knowledge Production and Utilization in Educational Administration. Portland, Oreg.: Center for the Advanced Study of Educational Administration and University Council for Educational Administration, University of Oregon, 1968.

This work is a cross-disciplinary collection of essays on innovation.

Evans, Richard I. Resistance to Innovation in Higher Education. San Francisco, Calif.: Jossey-Bass, Inc., 1968.

This reports a social-psychological case study focused on television and the establishment.

Evans, Richard I., and Peter K. Leppmann. The University Faculty and Innovation: Theory, A Research Case History (Television), Implications.

Houston, Tex.: Houston Research Institute Inc., 1965. (ED 010 542)

Characteristics of innovations in higher education are presented.

An Experiment in Planning by Six Countries. The Mediterranean Regional Project. Paris: Organization for Economic Co-Operation and Development, 1965.

This report describes a project whose original aim was the production of a plan for educational development in the light of the economic needs of six different countries, as well as recommendations to policy makers on a program of action.

Eye, Glen G., et al. Relationship Between Instructional Change and the Extent to Which School Administrators and Teachers Agree on the Location of Responsibilities for Administrative Decisions. Madison, Wis.: University of Wisconsin, 1966. (ED 010 166)

The authors imply that educators probably engage much more in the planning than in the implementing of instructional change. They report a study based on the thesis that the extent of congruence among teachers, administrators and supervisors is related in a positive manner at an appropriate level of significance to the incidence of planning for instructional change as well as to the extent of the implementation of this planning. Results indicate that the relationship between the extent of congruence in staff perceptions of decision-point location is not significantly related to the production of curricular plans or to the implementation of these plans.

Farnsworth, Philip T. Adaptation Processes in Public School Systems. New York: Columbia University Press, 1940.

The author suggests an application model in educational change which should follow this sequence: reorganize and articulate the need, propose a solution, create interest in the suggested solution, demonstrate usefulness, invite group and public interest, obtain official approval and community financing, and remove any legal restrictions.

Folsom, Marion B. Executive Decision Making. New York: McGraw-Hill Book Company, Inc., 1962.

Folsom stresses the importance of staff assistance in planning at the top level of management.

Foster, Robert J. Examples of Cross-Cultural Problems Encountered by Americans Working Overseas: An Instructor's Handbook. Alexandria, Va.: Human Resources Research Office, George Washington University, May, 1965.

This handbook of examples of cross-cultural problems encountered by Americans working overseas contains case studies in change.

Gallaher, Art. Plainville Fifteen Years Later. New York: Columbia University Press, 1961.

This book presents a study of the acceptance of change by the people of Plainville. Gallaher makes several conclusions:

- (1) An important factor in the acceptance of change by the public is the subjective meaning which individuals themselves see in the proposed innovation.
- (2) In Plainville, centralized agencies can interfere with the acceptance of change by the community.
- (3) The broadening effects of travel on the citizens of Plainville are instrumental in establishing a climate favorable to innovation.

Gans, Herbert J. People and Plans. New York: Basic Books, Inc., Publishers, 1968.

In this work, an urban sociologist has applied concepts and data from the social sciences to problems which confront the professionals concerned with the future of American cities.

Gardner, John W. Self-Renewal: The Individual and the Innovative Society. New York: Harper and Row, 1964.

According to Gardner, change is to be judged by the criterion of continuing adaptability.

Gittell, Marilyn, and T. Edward Hollander. Six Urban School Districts. New York: Frederick A. Praeger, Publishers, 1968.

In this study, innovation is defined as the successful introduction of new means or ends to an applied situation. The authors also analyze the political aspects of change.

Goldhammer, Keith, and Stanley Elam. (eds.) Dissemination and Implementation. Third Annual Phi Delta Kappa Symposium on Educational Research. Bloomington, Ind.: Phi Delta Kappa, 1962.

This series of papers considers the role of technology, institutions and agencies in the dissemination and implementation of change.

Goldhammer, Keith, and Frank Farner. The Jackson County Story.

Eugene, Oreg.: Center for the Advanced Study of Educational Administration, University of Oregon, 1965.

The authors present a case study of change in which a conservative school board reacts negatively to the change strategies of the liberal school superintendent.

Goldhammer, Keith, et al. Issues and Problems in Contemporary Educational Administration. Eugene, Oreg.: University of Oregon, 1967.

This book discusses the role of regional laboratories, of the state, and of the federal government in finding the solutions to the problems of educational change, teacher militancy, instruction, administrative leadership, critical social issues, and finance.

Goldhammer, Keith, and Roland J. Pellegrin. Jackson County Revisited.

Eugene, Oreg.: Center for the Advanced Study of Educational Administration, University of Oregon.

The authors present a case study which shows the involvement of politics in education, in the confrontation of liberals and conservatives.

Goodlad, John I. Planning and Organizing for Teaching. Washington, D. C.: National Education Association, 1963.

The problems of planning and organizing for teaching are classified by three levels of remoteness from students engaged in their schooling: teachers, who are in close contact with pupils, make instructional decisions; teachers and their administrative superiors make institutional decisions; school board members, state legislators, and federal officials make "societal-educational" decisions.

Gore, William J., and J. W. Dyson (Eds.). The Making of Decisions: A Reader in Administrative Behavior. Glencoe, N. Y.: The Free Press, 1964.

Various essays are presented on decision-making.

Gottlieb, David, and Wilbur B. Brookover. Acceptance of New Educational Practices by Elementary School Teachers. East Lansing, Mich.:

Educational Publication Services, College of Education, Michigan State University, May, 1966.

It is observed that the teacher does not perceive her role as someone who should or can make decisions about educational innovations. Findings show that most teachers see acceptance of a specific change as something contingent chiefly upon the relevant policies of their administration. They tend to see their own role primarily as the act of teaching, although this can be subject to administrative change.

Griffiths, Daniel. Administrative Theory. New York: Appleton-Century-Crofts, Inc., 1959.

The author makes three conclusions about administration:

- (1) Administration is a generalized type of behavior which can be found in all organizations.
- (2) Administration is the process of directing and controlling life in a social organization.
- (3) The specific function of administration is the development and regulation of the decision-making process in the most efficient manner possible.

Griffiths, V. L. Educational Planning. London, England: Oxford University Press, 1962.

The book aims to give the person who is neither a teacher nor an expert in education the general knowledge necessary for wise planning. It concentrates on what planning should accomplish rather than how the actual planning should be done. It covers such topics as aims, staffing, money, further development, and emergency measures.

Gross, Neal, Joseph B. Giacquinta, and Marilyn Bernstein. An Attempt to Implement a Major Educational Innovation: A Sociological Inquiry. Cambridge, Mass.: Center for Research and Development on Educational Differences, Harvard University, 1968.

This research study focuses on the events that transpired during a six-month period after an innovation was announced. The study attempts to shed light on organizational complexities and the dynamics of the process of change.

Guest, Robert H. Organizational Change: The Effects of Successful Leadership. Homewood, Ill.: Dorsey Press, Inc., 1962.

Guest points out that changes imposed by the top of a hierarchy do not assure the cooperation of subordinates; rather there must be some kind of involvement from below which makes it possible for subordinates to accept and even initiate a certain amount of change themselves.

Halpin, Andrew W. Theory and Research in Administration. New York: Macmillan, 1966.

In presenting a pattern for research on administrative behavior, Halpin explains the derivation and use of the "Leader Behavior Description Questionnaire" (LBDQ) and the "Organizational Climate Description Questionnaire" (OCDQ).

Hamlin, Will, and Lawrence Porter (eds.). Dimensions of Change in Higher Education. Yellow Springs, Ohio: Union for Research and Experimentation in Higher Education, June, 1967. (ED 014 304)

This work investigates the question, "Innovation: How Does It Happen?" It also discusses sources for innovation, the conditions under which innovation can take place, and those aspects of innovation which can become problem areas.

Harrison, Roger. Problems in the Design and Interpretation of Research on Human Relations Training. Washington, D. C.: National Training Laboratories Institute for Applied Behavioral Science, National Education Association, 1967. (ED 014 015)

This work focuses on eight problems in the area of designing and interpreting research on training people in human relations.

Havelock, Ronald J. Bibliography on Knowledge Utilization and Dissemination. Ann Arbor, Mich.: Center for Research on the Utilization of Scientific Knowledge, University of Michigan, 1968.

This bibliography contains approximately four thousand entries.

Heck, James B. An Analysis of Change in Public Education. Columbus, Ohio: The Evaluation Center, College of Education, Ohio State University, 1967.

This research study seeks to identify factors which are associated with the acceptance and adoption of educational change.

Hillson, Maurie (ed.). Change and Innovation in Elementary School Organization. New York: Holt, Rinehart and Winston, 1967.

This work contains an anthology of readings on the substance and effects of changes in the elementary school; it does not investigate how changes are to take place.

Hood, Paul D. Implementation and Utilization of the Leader Preparation Program. Alexandria, Va.: Human Resources Research Office, George Washington University, March, 1967.

Hood presents a case study of the development and use of an Army leadership preparation training course.

Howe, Harold. Report on Cooperative Research to Improve the Nation's Schools. Office of Education, Department of Health, Education and Welfare. Washington, D.C.: U. S. Government Printing Office, 1967. (ED 015 558)

This report describes the research and development process, some reasons for the amendments to the Cooperative Research Act, and various types of Cooperative Research support.

Innovation in Education: New Directions for the American School. New York: Committee for Economic Development, July, 1968.

This report explains four imperatives for the schools:

(1) organization for change, (2) application of cost-benefit analysis, (3) stimulation of research and innovation, and (4) establishment of a national commission on research, innovation and evaluation in education. It also describes some problems of the schools, as well as goals and opportunities, costs and benefits, and a proposal that a commission on research, innovation and evaluation in education be formed.

Institutional Research in the Junior College. Los Angeles, Calif.:

University of California, June, 1962. (ED 014 281)

In this work, suitable targets for institutional research are identified, organizational patterns are suggested, and specific institutional research programs are described.

Jenson, Theodore J., and David L. Clark. Educational Administration.

New York: The Center for Applied Research in Education, Inc., 1964.

The authors define the term "model" in two ways. In its general sense, "model" can be used to connote a scheme, paradigm, or classification which attempts to describe phenomena in a systematic manner by using symbols or classification categories; when applied to the study of phenomena, it is designed to produce relevant, testable hypotheses. In its specific sense, it may be defined in terms of the isomorphic relation of one phenomenon or concept to another; it is then employed to develop laws, theories, or hypotheses regarding a less understood area.

Jung, Charles, Ronald Lippitt, and Robert Fox. Retrieving Social Science Knowledge for Secondary Curriculum Development. Lafayette, Ind.: Purdue University, March, 1966. (ED 014 000)

This work reports a series of sixteen 2-1/2-hour interviews which were conducted with small groups of social scientists to obtain their answers to the question, "What phenomena, concepts, theories, issues and methodologies from your area should be included in a high school social science curriculum?" In a seventeenth session, the team-members discussed strategies for use of the data.

Kahn, Herman, and Anthony J. Wiener. The Year 2000: A Framework for Speculation on the Next Thirty-Three Years. Croton-on-Hudson, N.Y.: Hudson Institute, Inc., 1967.

The authors discuss the long term trends of Western civilization and implications of policy research and social change for the future.

Katz, Daniel, and Robert L. Kahn. The Social Psychology of Organizations.

New York: John Wiley & Sons, Inc., 1966.

In this work, organizations are viewed as open systems, and planning is seen as being of paramount importance. Various strategies for organizational change are discussed and evaluated.

Klingenberg, Allen Jay. A Study of Selected Administrative Behaviors among Administrators from Innovative and Non-Innovative Public School Districts. Washington, D. C.: Bureau of Research, Office of Education, U. S. Department of Health, Education, and Welfare, May, 1967. (ED 014 128)

From a non-random sample of twenty K-12 Michigan school districts, the findings of Klingenberg's study indicate that administrators in innovative systems differed from those in non-innovative systems in the following respects:

- (1) They tend to rely upon a greater number of information sources for new curriculum practices,
- (2) They have more years of school administration experience,
- (3) They have more years of total professional educational experience,
- (4) They have a greater involvement of their teaching staffs in curriculum change, and
- (5) They have a greater recognition of the worth and dignity of their teaching staffs.

Kreitlow, Burton W., and Teresa MacNeil. An Evaluation of the Model for Educational Improvement as an Analytical Tool for Describing the Change Process. Madison, Wis.: Wisconsin Research and Development Center for Cognitive Learning, University of Wisconsin, March, 1969. This book describes the development and testing of a model which is to serve as a valid description of the change (improvement) process in education. This model assumes that each school has, in one form or another, the social machinery for institutional adjustment.

Kurland, Norman D., and Richard I. Miller. Selected and Annotated Bibliography on the Processes of Change. Albany, N. Y.: State Education Department, 1966.

The bibliography contains approximately 170 entries.

Kushner, G. M. Gibson, et al. What Accounts for Sociocultural Change? A Propositional Inquiry. Chapel Hill, N. C.: Institute of Research in Social Science, University of North Carolina, 1962.

This work is a commentary on familiarity-unfamiliarity and the general notions of congruence and compatibility. A distinction is made between malleable cultural traits, such as those dealing with instrumental techniques and aesthetic matters, and persistent traits, which deal with ideological security, status maintenance and child rearing. The author suggests that a change dealing with the former is much more likely to gain acceptance than a change which deals with the latter.

Lawrence, Paul R. The Changing of Organizational Behavior Patterns. Cambridge, Mass.: Harvard University Press, 1958.

This book presents case studies of organizational change in which no outside change-agent was involved.

LeBreton, Preston P. General Administration Planning and Implementation. New York: Holt, Rinehart and Winston, Inc., 1965.

The author describes his planning-implementation model and presents a case study to explain its operation.

LeBreton, Preston P., and Dale A. Henning. Planning Theory. Englewood Cliffs, N. J.: Prentice Hall, Inc., 1961.

The authors define planning, present its characteristics and dimensions, and explain the sequential steps in planning. They also indicate what topics should be covered in a plan, and they put forth various hypotheses concerning how planning is to be accomplished.

Likert, Rensis. New Patterns of Management. New York: McGraw-Hill Book Company, Inc., 1961.

Likert states that those changes which are made rapidly or which are superimposed by authority meet with strong resistance. He feels that errors are likely to occur when major changes are introduced, and that changes end abruptly if those at higher levels in the hierarchy do not support subordinates who make mistakes.

Lins, L. Joseph (ed.). The Role of Institutional Research in Planning. Madison, Wis.: University of Wisconsin, 1963. (ED 016 367)

This work maintains that universities need much more information about their operations in order to make intelligent decisions.

Lippitt, Ronald, Jeanne Watson, and Bruce Westley. The Dynamics of Planned Change. New York: Harcourt, Brace and World, Inc., 1958.

A change model with the following seven phases is explained:

- (1) The development of a need for change.
- (2) The establishment of a change relationship.
- (3) The clarification or diagnosis of the client system's problem.
- (4) The examination of alternative routes and goals; the establishment of goals and intentions of action.
- (5) The transformation of intentions into actual change efforts.
- (6) The generalization and stabilization of change.
- (7) The achievement of a terminal relationship.

Lippmann, Walter. Public Opinion. Glencoe, N. Y.: The Free Press, 1966.

Lippmann argues for the institutionalization of the planning process by establishing a system of organized information gathering.

Loellbach, Herman (ed.). Technology in Retrospect and Critical Events in Science. Volume 1. The Illinois Institute of Technology Research Institute, December, 1968.

This book traces the historical background of key scientific events which led to the creation of five major technological innovations. These key events were categorized in terms of three types of R & D activity: non-mission research, mission-oriented research, and development and application.

Mackie, Robert R., and Paul R. Christensen. Translation and Application of Psychological Research. Goleta, Calif.: Human Factors Research, Inc., 1967.

This study describes those processes involved in translating the results of laboratory research in psychology into forms that would be meaningful and useful in operational settings. It was conducted to enable the Navy to gain more practical applications from the research it sponsors.

Management of New Products. New York: Booz, Allen and Hamilton, Inc., 1968.
The stages of new product evolution, and problems related to new products, are discussed.

Mann, Floyd, C., and F. W. Neff. Managing Major Change in Organizations. Ann Arbor, Mich.: The Foundation for Research on Human Behavior, 1961.
This study focuses on objective versus psychological participation (measurable contribution or influence compared to perceived influence). According to the model presented in this work, acceptance of change is determined by the degree of perceived control of the environment and of the change as well as by the degree of trust in the change initiators.

March, James G., and Herbert A. Simon. Organizations. New York: John Wiley and Sons, Inc., 1958.
Sensitivity to innovation is a function of the relevance of the innovation to the needs of the specific unit involved.

Massarik, Fred. A Sensitivity Training Impact Model: Some First (and Second) Thoughts on the Evaluation of Sensitivity Training. Washington, D. C.: National Training Laboratories, National Education Association, 1965. (ED 011 990)
The author presents the Sensitivity Training Impact Model (STIM) with the hope that it will help to identify more clearly the manner in which present research efforts fit together, where there are gaps in our knowledge, and the directions which future research should take.

Mayhew, Lewis B., and John Beynon. Community College Planning: Concepts, Guidelines and Issues. Stanford, Calif.: Community College Planning Center, Stanford University, 1964. (ED 015 627)
The authors feel that if one can formulate proper questions in words which can be understood, major progress toward resolution will result.

McCarty, Donald J., and Charles E. Ramsey. A Study of Community Factors Related to the Turnover of Superintendents: Community Power, School Board Structure, and the Role of the Chief School Administrator. Washington, D. C.: Bureau of Research, Office of Education, U. S. Department of Health, Education, and Welfare, May, 1967. (ED 014 130)
This research rests on the assumption that any school system must be understood in terms of its supporting environments; that is, school board members and superintendents of schools are selected on the basis of whatever sources of power or symbols of legitimacy may be dominant in a particular community. The study

establishes that dominated power structures in communities are associated most often with dominated structures in the school board.

Medlin, William K., Finley Carpenter, and William M. Cave. Education and Social Change: A Study of the Role of the School in a Technically Developing Society in Central Asia. Ann Arbor, Mich.: University of Michigan, December, 1965. (ED 003 266)

This study concludes that, as a change agent, the school performs specific and vital roles that are unique to it as a social institution.

Meier, Richard L. Developmental Planning. New York: McGraw-Hill Book Company, 1965.

The author presents three aspects of planning: (1) an image of a more desirable future, (2) at least one course of action that enables the society to achieve it, and (3) hierarchical ordering and structure.

Menefee, Audrey (ed.). Institutional Research in the Junior College: Process and Product. California Junior College Association Committee on Institutional Research, (n. p.), (n. d.). (ED 014 276)

This report covers the purposes and uses of institutional research, the scope of institutional research, funding of research activities, organization for research, resources to assist in junior college research programs, and reports of research.

Mersel, Jules, Joseph C. Donahue, and William S. Morris. Information Transfer in Educational Research. Sherman Oaks, Calif.: Informatics, Inc., April, 1966. (ED 010 128)

This study, conducted to provide guidance in the development of ERIC for the USOE, centered around three tasks:

- (1) The determination of present information needs among those persons concerned with educational research.
- (2) The identification of the technology which would be available by 1969.
- (3) The planning of an orderly transition from the initial ERIC posture to one which would satisfy needs in the most economical and efficient manner.

It covers the dissemination of information, the changing information technology, ERIC and the future, current awareness, and data processing for current needs.

Merton, Robert. Social Theory and Social Structure. Glencoe, N. Y.: The Free Press, 1957.

Merton makes the point that if one seeks social change without due recognition of the manifest and latent functions performed by the social organization which is to undergo that change, one indulges in social ritual rather than social engineering.

Miles, Matthew B. (ed.). Innovation in Education. New York: Bureau of Publications, Teachers College, Columbia University, 1964.

This anthology which includes case studies deals with the theory and underlying concepts of and structures for educational change.

Miller, Richard I. A Comprehensive Model for Managing an ESEA Title III Project from Conception to Culmination. Report Number 3 of the Second National Study of PACE, November, 1968.

Miller's model is composed of the following five sections:

- (1) The proposal development which includes formation of a task force, assessment of needs, setting of priorities, and development of the actual proposal.
- (2) An appraisal after the completion of the first year.
- (3) An appraisal after the completion of the second year.
- (4) An appraisal after the completion of the third year.
- (5) The final evaluation.

Miller, Richard I. (ed.). A Directory of Individuals, Programs, and Agencies Engaged in the Study of Change. 1967 Edition. Bloomington, Ind.: The National Institute for the Study of Educational Change, 1967.

This work contains a comprehensive listing of the individuals, programs and agencies engaged in the study of change along with their objectives.

Miller, Richard I. (ed.). A Multidisciplinary Focus on Educational Change. Lexington, Ky.: Bureau of School Service, College of Education, University of Kentucky, 1965.

This anthology contains a series of papers which attempts to define the problems of change in education.

Miller, Richard I. (ed.). Perspectives on Educational Change. New York: Appleton-Century-Crofts, 1967.

This work, which includes case studies, attempts to explain concepts of the change process.

Miner, John B. The School Administrator and Organizational Character. Eugene, Oreg.: Center for the Advanced Study of Educational Administration, 1967.

This work reports a study of 219 administrators in four different school systems using a series of evaluative techniques. The author reports that the predominant trend is one in which a lack of originality and a failure to innovate are rewarded. The author feels that it is this lack of conscious awareness of organizational character which makes planned change so rare and the attainment of an effective organization so difficult.

Moore, W. E. Social Change. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1963.

The author discusses change processes in general and pre-conditions

for change in particular. He lists six strains within a system which promote change, and he states that organizations often deliberately create problems for themselves vis-a-vis departments of research and development, rather than waiting passively for change stimuli to appear.

Morphet, Edgar L., and David L. Jesser (eds.). Emerging Designs for Education. Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968.

It is believed that many potential problem situations in education can be resolved, or at least alleviated, if an appropriate system of comprehensive planning is developed and implemented. Such a system must meet four requirements:

- (1) It must be based on pertinent information;
- (2) It must provide goals and direction;
- (3) It must set forth reasonable alternatives from which decision makers can choose a defensible course of action;
- (4) It must involve, in a meaningful manner, the people who will ultimately have to make the decisions.

Morphet, Edgar L., and Charles O. Ryan (eds.). Planning and Effecting Needed Changes in Education. New York: Citation Press, 1967.

Planning, according to the authors, should not attempt to predict future developments, nor should it try to prepare a theoretical blueprint for the meeting of needs. Rather they feel that the major purposes of the planning process are the following:

- (1) The setting of long-range goals and objectives,
- (2) The obtaining and analyzing of pertinent information concerning present needs and problems, and
- (3) The achieving of agreement on the procedures required to meet these needs and thus facilitating the achievement of the objectives.

Morphet, Edgar L., and Charles O. Ryan (eds.). Prospective Changes in Society by 1980. Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1966.

This work discusses possible future changes in various fields.

Mort, Paul R., and F. G. Cornell. American Schools in Transition. New York: Bureau of Publications, Teachers College, Columbia University, 1941.

Innovations in school systems in the 1930's appear to have been much more closely related to community (and thus financial) factors than to characteristics of administrators or teachers. At that time, community size and wealth appeared to exert the most powerful effects in the case of "visible" innovations.

Naik, J. P. Educational Planning in India. New York: Allied Publishers, 1965

The author discusses the past, present, and future of educational planning in India.

O'Connell, Jeremiah J. Managing Organizational Innovation. Homewood, Ill.: Richard D. Irwin, Inc., 1968.

This case study, a non-participating observer's record of a situation involving one of the world's largest insurance companies and one of the world's largest management consulting firms, describes the attempt of the change agent to effect the desired changes through unilateral, rather than cooperative, effort.

Organizational Problems in Planning Educational Development. Paris, France: Organization for Economic Co-Operation and Development, 1966.

This report discusses the following topics:

- (1) The role of educational plans in economic and development programs.
- (2) Manpower requirements and educational organization.
- (3) Resource requirements and educational organization.
- (4) Decentralization vs. centralization in education.
- (5) Research for educational organization.

Orr, John B., and Lydia Pulsipher (eds.). Education and Social Change. Austin, Tex.: Southwest Educational Development Laboratory, 1967.

The authors discuss culture, and the possible need for compensatory education.

Pfiffner, John M., and Frank P. Sherwood. Administrative Organization. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1960.

In this study of the organization of administration, the authors present a chapter on the development of organization planning in industry.

The Pilot Communities Program: Basic Program Plan. Newton, Mass.: Education Development Center, September, 1968.

The use of a resource team which has undergone sensitivity training is described as an agent of change within a school.

Planning-Programming-Budgeting. Bulletin 66-3: U. S. Bureau of the Budget, October, 1965.

This work describes what PPBS, when properly implemented, will enable each agency to do.

Presthus, Robert. The Organizational Society. New York: Alfred A. Knopf, 1962.

The author defines and discusses three kinds of personal adjustment to bureaucratic stratification:

- (1) The "upward mobile," whose goals and values are identical or nearly identical to those of his company.
- (2) The "indifferent" who accommodates by separating himself from organizational values and by withdrawing from political and community affairs.
- (3) The "ambivalent" who cannot identify completely with the organization and who will not alienate himself from political

and community affairs. The "ambivalent" is the type that is most likely to encourage innovations.

Price, Carroll S. A Study of Innovations in California Junior College Evening Divisions. Part II. Alta Loma, Calif.: Chaffey College, May, 1966. (ED 011 188)

The author lists and discusses the many innovations that have taken place in this rapidly changing educational field.

Progress in Evaluation Study. Los Angeles, Calif.: Graduate School of Education, UCLA, November, 1968.

This report describes the projects and the operation of the Center for the Study of Evaluation of Instructional Programs.

Project Manager's Handbook. New York: Booz, Allen and Hamilton, Inc., 1967.

The handbook presents a general overview of the project manager concept and a detailed discussion of the tools which can be used to implement the concept.

Price, W. J., W. G. Ashley, and J. P. Martino. Relating the Accomplishments of AFOSR to the Needs of the Air Force. Air Force Office of Scientific Research, 1966.

This study implies that it is not unusual for a five to ten year period to lapse between the discovery of a technical or scientific innovation and its practical implementation.

Reading Book: Annual Laboratories in Community Leadership Training.

Washington, D. C.: National Training Laboratories, National Education Association, 1966. (ED 011 101)

The T-group, which employs inquiry, exploration, and experimentation in its own activities to improve understanding of individual and group behavior, is analyzed in terms of basic psychological needs and interpersonal relationships. Emotional problems in organizations and groups are examined, together with leadership and the management of conflict, interpersonal communication, defense mechanisms and personal growth, useful criteria for evaluating group growth, relationships and interaction between client and consultant, processes of social interaction and change, and stages in planning organizational change. Skills are indicated for stimulating change in performance, attitudes, and understandings of an individual, group, organization, or community.

Reading Book. Twentieth Annual Summer Laboratories in Human Relations Training. Washington, D. C.: National Training Laboratories, 1966. (ED 011 989)

This report enumerates strategies for effecting institutional change, factors which encourage organizations to change, and phases of planned change.

Research Information: National, State and Local Needs, Roles and Services as Viewed by Kentucky Local System District Personnel.
Frankfort, Ky.: Division of Educational Research, Kentucky Department of Education, March, 1967. (ED 012 269)

This study reaches the following conclusions:

- (1) Research information is most urgently needed in the areas of instruction and curriculum.
- (2) Publications such as those of NEA, KEA, USOE, and the State Department are the most widely used sources of information.
- (3) Sources are abundant, but many educators lack confidence in them, feeling that they are not applicable to their particular problems.
- (4) There is a need on the national level for more information dissemination agencies and for the production of more readable summaries and abstracts.
- (5) The state should collect and summarize state level information and distribute it to school districts.

Richard, W. Kenneth. Educational Planning: Old and New Perspectives.
London, England: Michael Joseph Limited, 1966.

In this comparison of the educational planning mechanism in England with that of Hungary and Czechoslovakia, the author gives an extensive history of the English system and its lack of planning.

Richland, Malcom. Traveling Seminar and Conference for the Implementation of Educational Innovations. Santa Monica, Calif.: System Development Corporation, October, 1965. (ED 003 126)

Along with a summary of the content of each conference, the author presents the following major findings:

- (1) The traveling seminar and follow-up conference concept is a highly effective method of dissemination for stimulating and facilitating educational innovation.
- (2) There are measurable attributes of school districts which may be related to the innovative behavior of these districts.
- (3) The attitude of the local superintendent toward innovation is a significant variable in the introduction of innovations in school districts.

Reisman, David. The Lonely Crowd. New York: Doubleday & Co., Inc., 1954.

The author discusses three personality types which are subject to different emotional sanctions and control:

- (1) The "tradition-oriented" reacts to his culture as a unit which is interpreted to him by the small group of people with whom he comes in contact; the operative sanction is the fear of feeling ashamed.
- (2) The "inner-directed" acts on the basis of his own psychological "gyroscope"; the emotional sanction is his reluctance to violate his inbuilt principles and guides.
- (3) The "other-directed" is attentive to a larger social environment than are the other two; his emotional sanction is the response to new ideas and individuals.

- Rogers, David. 110 Livingston Street. New York: Random House, 1968.
The author describes and analyzes the social, political, economic, and institutional forces which preclude the acceptance and adoption of educational change in New York City.
- Rogers, Everett M. Bibliography on the Diffusion of Innovations. East Lansing, Mich.: Department of Communications, Michigan State University, July, 1966.
This work presents a listing of over 1100 studies on innovation.
- Rogers, Everett M. Diffusion of Innovations. Glencoe, N. Y.: The Free Press, 1962.
This work highlights three variables in the study of change: (1) the innovation; (2) the target unit or that which is to be changed; and (3) the initiating unit or change agent.
- Rogers, Virgil M. Adapting Educational Change to Manpower Needs in Quincy, Massachusetts, and Wood County (Parkersburg), West Virginia. Washington, D. C.: National Education Association, 1966. (ED 015 268)
The author describes the manner in which Quincy and Parkersburg planned and implemented educational change. He also suggests guidelines to help other communities achieve change.
- Ross, Donald H. (ed.). Administration for Adaptability. New York: Metropolitan School Study Council, 1958.
This work presents a summary of the studies of adaptability which were undertaken in the Paul Mort tradition at Columbia University.
- Russell, James E. Change and Challenge in American Education. Boston, Mass.: Houghton Mifflin Company, 1965.
According to Russell, the primary emphasis in education must be placed on rational development; this has not been stressed enough. He also discusses the following topics:
 - (1) Shift in philosophical context.
 - (2) Shift in social context.
 - (3) Twentieth Century fallacy.
 - (4) The response in elementary education.
 - (5) The response in secondary education.
 - (6) The response in higher education.
- Schramm, Wilbur, et al. The New Media: Memo to Educational Planners. Paris, France: UNESCO, International Institute for Educational Planning, 1967.
The authors discuss the necessary considerations in planning for new media. They suggest ways in which a systems approach may be utilized in carrying out the planning procedure.

Stuart, Michael, and Charles Dudley. Bibliography on Organization and Innovation. Eugene, Oreg.: Center for the Advanced Study of Educational Administration, University of Oregon, 1968.

This bibliography contains approximately 650 entries.

Study of the Diffusion Process of Vocational Education Innovations.

Lansing, Mich.: Vocational Education Research Coordinating Unit, Department of Education, State Board of Education, 1967. (ED 011 297)

This study attempts to identify a communication network which might shorten the time lag in the adoption of educational innovations in vocational education. A survey identified innovative schools and programs.

Technical Report of the School Administrators Conference. New York: National Urban League, August, 1966. (ED 014 140)

This report discusses the various aspects of quality integrated education.

Technological Innovation: Its Environment and Management. U. S. Department of Commerce. Washington, D. C.: Government Printing Office, 1967.

A panel of executives from various fields made this observation about their product innovations: only 5% to 10% of innovative costs were attributable to R & D; the other 90% were incurred in planning for market study.

Technology and Innovation in Education. Aerospace Education Foundation, New York: Frederick A. Praeger, Publishers, 1968.

These are the divisions of this work:

- (1) Behavioral Technology
- (2) The Computer as an Educational Tool
- (3) The Forces Shaping Education.

Thompson, Victor A. Modern Organization. New York: Alfred A. Knopf, 1965.

The author discusses three defense mechanisms to justify authority in organizations: the ideological approach, the dramaturgy or impression approach, and the bureaupathic approach.

Todd, Eugene. The Change Process: Implications and Applications for Instructional Improvement. Todd Letters. Chicago, Ill.: Research Associates, Inc., October, 1968-June, 1969.

This series of newsletters explains the various phases and roles in the change process and their practical application in instructional improvement.

Unruh, Glenys G., and Robert Leeper. Influences in Curriculum Change. Washington, D. C.: Association for Supervision and Curriculum Development, National Education Association, 1968.

The first part of this work deals with the social and psychological forces which influence curriculum change, and it points to curriculum developments which could result from these influences. The second part is concerned with actual changes that are taking place at the present time in a number of subject fields.

Vidich, Arthur J., and Joseph Bensman. Small Town in Mass Society. Princeton, N. J.: Princeton University Press, 1958.

This study shows that the professional educator who refrains from direct contact with parents and teachers is considered to be an alien expert who uses his knowledge to shape the community as it affects him and his ends which are necessarily in the selfish interests of education.

Walker, Robert Averill. The Planning Function in Urban Government. Chicago, Ill.: The University of Chicago Press, 1950.

The author presents a general survey of the functions and processes of planning.

Waterson, Albert. Development Planning. Baltimore, Md.: Johns Hopkins Press, 1965.

Three stages of planning are discussed: the project-by-project approach, integrated public investment planning, and comprehensive planning. The author states that nothing is more parochial than restricting the planning function to the mere manufacture of plans without referring to factors necessary for their implementation.

Westby-Gibson, Dorothy. Inservice Education: Perspectives for Teachers. Berkeley, Calif.: Far West Laboratory for Educational Research and Development, 1967. (ED 015 161)

Inservice education is viewed as a way of linking educators and researchers. Three models for effecting change are examined: (1) displacement, (2) authority, and (3) co-action. Recent innovations that can aid educators in inservice practices are also discussed.

Wheeler, Herbert C., Jr. Traveling Educational Units. Charleston, W. Va.: The Appalachia Educational Laboratory, Inc., December, 1966.

In his extensive discussion of traveling educational units, Wheeler maintains that these units have an important place in the implementation of improvements in educational quality in the future.

Whyte, William Foote, and Edith Lenz Hamilton. Action Research for Management. Homewood, Ill.: Richard D. Irwin, Inc., 1964.

The authors report the use of action research to effect organization change. Social science theory is infused into the client system in an effort to induce change.

Wiens, John L., Stephen C. Whitney. and David S. Haviland. Schools and Innovations: A Prologue to Planning. Troy, N. Y.: Rennselaer Polytechnic Institute, January, 1965. (ED 013 525)

This research report attempts to provide a common ground of understanding between educator and architect in the planning process. The authors believe that a discussion of educational innovations will close the communication gap between these two groups. The report is organized around the following topics:

- (1) Organizing students in groups.
- (2) Organizing curricula for individual differences.
- (3) Organizing staff for effectiveness.
- (4) Organizing time for effectiveness.
- (5) Organizing plant for effectiveness.
- (6) Improving the administrative process.
- (7) Improving the communication process.
- (8) Extending the role of the school.
- (9) Cooperative development of resources and services.

Williams, Catherine M. The Development of a Packaged Program Designed to Enable Teachers to Carry on Their In-Service Audio-Visual Education. Columbus, Ohio: Ohio State University Research Foundation, September, 1965. (ED 003 127)

This report centers on a project which attempted to develop a self-administered packaged program consisting of a series of integrally related audio-visual workshops, each one separately packeted for use by groups of in-service teachers.

Witkin, Belle Ruth. Fault-Tree Analysis: A Research Tool for Educational Planning. Hayward, Calif.: Alameda County School Department PACE Center, October, 1968.

This report, which details the purpose, uses, history, and application of fault-tree analysis, describes the technique as a method for increasing the probability of success in any system by analyzing the types of failure most likely to occur.

York, Linda J. Arrangements and Training for Effective Use of Educational R & D Information: A Literature Survey. Berkeley, Calif.: Far West Laboratory for Educational Research and Development, December, 1968.

The report contains a description of the organizational arrangements which facilitate the use of R & D information within the public school setting and of the training programs for increasing the use of R & D information by school personnel. Both the organizational arrangements and the training programs are described under the headings of objectives, status, sponsor, membership and organization, cost estimate, operating procedures, training, evaluation, and publications. The report concludes that the skills in which the least training is being provided are needs assessment, long-range planning, and systematic analysis of present conditions.

Young, Michael. Innovation and Research in Education. London: Routledge and Kegan Paul, 1965.

This book describes a possible structure for educational research in England and urges the adoption of such a structure. It also discusses the great influence of fashion on research.

Zeigler, Harmon. Interest Groups in American Society. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1965

This book focuses upon the explanation of organizational change within interest groups and of the impact of such change on changes in society.

Zimmer, Basil G., and Amos H. Hawley. Resistance to Reorganization of School Districts and Government in Metropolitan Areas. Providence, R. I.: Brown University, 1966. (ED 010 197).

This reports a study of the factors which contribute to the failure of school reorganization proposals to win popular support. The general findings indicate that any effort toward reorganization should be focused on the suburban areas, for it is in these areas that major obstacles are found.

ARTICLES IN BOOKS

Adelson, Marvin. "Decisions, Decisions, Decisions: Is Education Important Enough?" Planning for Effective Utilization of Technology in Education, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight State Project, 1968.

The author bemoans the fact that decisions are usually made without recourse to relevant and available knowledge, and he suggests ways to improve the situation.

Agger, Robert E. "The Politics of Local Education: A Comparative Study in Community Decision-Making," A Foreward Look - The Preparation of School Administrators, 1970, Donald A. Tope (ed.). Eugene, Oreg.: Bureau of Educational Research, 1960.

In a study of public attitudes toward the acceptance of new school programs in Eugene and Springfield, Oregon, the author found that a highly favorable attitude toward the public schools resulted in a greater readiness to accept the specific innovations.

Anderson, C. Arnold, and Mary Jean Bowman. "Theoretical Considerations in Educational Planning," Educational Planning, Don Adams (ed.). Syracuse, N. Y.: Syracuse University Press, 1964.

The authors feel that implementation is not a part of planning itself. They discuss equity (a goal or end in each of its variants) vs. efficiency (a rationality concept: to get the most out of the least, whatever the nature of the rewards or ends may be) considerations in regard to various planning approaches.

Bailey, Edwin. "Translating Concepts of Cooperation into Programs of Action," Partners for Educational Progress, Frank W. Markus (ed.). Kansas, Mo.: Metropolitan School Study Group and Mid-Continent Regional Educational Laboratory, October, 1967. (ED 015 541)

Three stages and several substages (phases) are presented as being required to complete the cycle of a cooperative endeavor from its inception to its ultimate establishment as a continuous program:
Stage 1: Planning and organizing.
Stage 2: The program in action.
Stage 3: Data collection and evaluation.

Baker, Robert L. "Supplementary Statement," Planning and Effecting Needed Changes in Education, Edgar L. Morphet and Charles O. Ryan (eds.). New York: Citation Press, 1967.

Baker considers the following to be the six educational development functions: instructional design, testing of the prototype, production, quality verification, instructional technology, and staff training. The four implementation functions include dissemination, installation, evaluation, and program review.

Beal, George M., and Joe M. Bohlen. "The Diffusion Process," Models for Educational Change, Alvin L. Bertrand and Robert C. Von Brock (eds.). Austin, Tex.: Southwest Educational Development Laboratory, 1968.

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Five stages of the diffusion process are presented: awareness, interest, evaluation, trial, and adoption. An innovation is defined as a change which involves not only a change in materials but also a complex of changes with regard to their use.

Bebell, Clifford F. S. "The Educational Program, Part One," Emerging Designs for Education, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968.

The author feels that the implementation of change may be difficult for the following reasons:

- (1) Most statements of goals represent generalizations, the implementation of which is usually not clear.
- (2) Goals often tend to threaten people.
- (3) Goal language is often emotionally loaded.
- (4) Frequently, persons involved in goal implementation have not been involved in the formulation of the goals.
- (5) Goal statements are often inconsistent with the structure of the curriculum.
- (6) Teachers gain security primarily from the familiar.
- (7) Often the problem is viewed as solved when the goals are stated.
- (8) Goals tend to vary considerably among people with different vocations, ages, religions, ethnic backgrounds and levels of schooling.

Bell, Richard H. "Implications of New Educational Technology," Planning for Effective Utilization of Technology in Education, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968.

The author emphasizes that dissemination, which usually refers only to the act of informing others, is not enough to bring about change.

Bentzen, Mary M. "Conflicting Roles," The Principal and the Challenge of Change, Jerrold M. Novotney (ed.). Dayton, Ohio: Institute for the Development of Educational Activities, Inc., 1968.

This essay discusses three types of role conflict experienced by principals in the League of Cooperating Schools and the resolution of these role conflicts.

Bertrand, Alvin L. "The Application of Social Organization and Social Interaction Models to Programs of Intercultural Education," Models for Educational Change, Alvin L. Bertrand and Robert C. Von Brock (eds.). Austin, Tex.: Southwest Educational Development Laboratory, 1968.

The author views social change as the final master process in all social systems. Social change is conceived as some alteration in patterns of interaction, is seen as a constant process, and is viewed as the goal of all innovative programs.

Blackwell, Gordon W. "Higher Education in the South 1968-1988," Proceedings, Conference on Research-Based Planning and Development. Regional Education Laboratory for the Carolinas and Virginia, 1968.

Blackwell lists six reasons for the institution of academic innovation:

- (1) The increasing demands by business, industry, government, and the public at large upon colleges and universities.
- (2) Adaptation to changes in national and world society.
- (3) The explosive growth of knowledge.
- (4) Changes in the student generation.
- (5) Discoveries in the field of how people learn.
- (6) Financial necessity.

Blanke, Virgil E. "Planned Change, Public Education, and the State," Planning and Effecting Needed Changes in Education, Edgar L. Morphet and Charles O. Ryan (eds.). New York: Citation Press, 1967.

Development is defined as the invention and design of better solutions to problems in teaching-learning situations. Blanke lists the objectives and functions of development and diffusion. He feels that educators in teaching-learning situations must provide opportunities for teachers and administrators to disseminate their own developments and adaptations.

Bouwsma, Franklin G. "Abstract of Speech on Educational Innovation," Creating a Climate for Innovation, Ralph O. Teter and Tom Pate, Jr. (eds.). Pearland, Tex.: Gulf Schools Supplementary Education Center, 1967.

In deciding to start and in choosing the personnel to involve in educational innovation, the author suggests the following:

- (1) Do not go beyond the present state of the art of engineering.
- (2) Be sure to involve the consumer so that local utilization can be ensured.

Brackenbury, Robert L. "Guidelines to Help Schools Formulate and Validate Objectives," Rational Planning in Curriculum and Instruction. Center for the Study of Instruction. Washington, D. C.: National Education Association, 1967.

Brackenbury describes seven steps in the process of planning:

- (1) The achievement of commitment.
- (2) The recognition of the nature of the objectives: objectives are obtainable, while aims and purposes are not.
- (3) The exploration of the source of the objectives.
- (4) The determination of the appropriateness of objectives.
- (5) The establishment of the worth of the objectives.
- (6) The ascertaining of the feasibility of the objectives.
- (7) Organizing the staff for action.

Branson, Robert K. "The Systems Approach to Learning: An Introduction," Administration and Innovation. John Weber (ed.). Ann Arbor, Mich.: The Midwest Community College Leadership Program, 1966. (ED 014 299)
According to Branson, planning, implementing and revision are the three words which most clearly define the systems concept.

Bratten, Jack E. "System Development and Innovation in Education," Novel Strategies and Tactics for Field Studies of New Educational Media Demonstrations, Sidney C. Eboch (ed.). Columbus, Ohio: Ohio State University, 1965. (ED 003 120)

The author implies that innovation is a type of complete, event-oriented "thingness" that focuses on the problems of getting a discrete change installed, accepted, and used. In this view, educational change is regarded as an unusual, novel, periodic event interposed between periods of organizational stability. The author contrasts this with the system development process which considers change as a normal function of an organization and provides for it as an ongoing orderly process. He then describes the stages in the system development process.

Brickell, Henry M. "Local Organization and Administration of Education," Implications for Education of Prospective Changes in Society, Edgar L. Morphet and Charles O. Ryan (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1967.

The author feels that most educational organizations will change because they are forced to follow certain directions rather than because they are truly adaptive mechanisms.

Brickell, Henry M. "Role of Research in the Innovative Process," The Role of Educational Research in Educational Change, Egon G. Guba (ed.). Bloomington, Ind.: The National Institute for the Study of Educational Change, 1967. (ED 012 505)

Brickell discusses the phases of the innovative process. Research is seen as a valuable, yet not necessarily sufficient, tool at every point in the process.

Brickell, Henry M. "State Organization for Educational Means," Media and Educational Innovation, W. C. Meierhenry (ed.). Lincoln, Nebr.: University of Nebraska, 1964. (ED 003 134)

Brickell states that better behavior, not research results, should be disseminated to local practitioners. The local school is seen as a consumer, not a maker, of materials. Brickell's stages in the total change process and the locus of responsibility at each stage are as follows:

- (1) Basic Research - National support
 - (2) Program Design - State
 - (3) Evaluation Through Field Studies - State
 - (4) Dissemination through Demonstration and Re-education - Local.
- In addition to these stages, he also describes the major steps involved in moving a new program into a school.

Brickell, Henry M. "Two Change Strategies for Local School Systems," Rational Planning in Curriculum and Instruction. Washington, D. C.: Center for the Study of Instruction, National Education Association, 1967.

Brickell feels that the success of a strategy can be predicted only if one knows (or assumes) the effect of individual tactics. He describes five steps for the orderly control of instructional change:

- (1) The choice of a criterion against which the final product will be judged.
- (2) The selection of a process to produce the product.
- (3) The measurement or description of the resulting product.
- (4) The comparison of the product to the criterion.
- (5) The making of a decision to select another process if the product falls short of the criterion.

Brumbaugh, A. J. "Institutional Research: A Basis for Planning with Special Reference to the Large Public University," The Role of Institutional Research in Planning, L. Joseph Lins (ed.). Madison, Wis.: University of Wisconsin, 1963. (ED 016 367)

Utilization of institutional research as a basis for long range planning is often delayed for the following reasons:

- (1) Administration is a continuing process of decision-making: daily decisions may be so pressing that the administration finds little time to consider long-range plans.
- (2) The administration may lack a clear conception of the values inherent in institutional studies.
- (3) Financial limitations may force the institutional studies into low-priority positions in the operating budget.

Buchanan, Paul C. "Crucial Issues in Organizational Development," Change in School Systems, Goodwin Watson (ed.). Washington, D. C.: National Training Laboratories, National Education Association, 1967.

Buchanan states that in comparing the successful and unsuccessful cases, the most conspicuous issue is that of linkage between the target system and the larger system. He lists nine issues which appear to be important as a consultant attempts to help an organization develop its effectiveness.

Buchanan, Paul C. "The Concept of Organizational Development, or Self-Renewal, as a Form of Planned Change," Concepts for Social Change, Goodwin Watson (ed.). Washington, D. C.: Cooperative Project for Educational Development, National Training Laboratories, National Education Association, 1967.

Buchanan feels that organizational development is directed toward developing the capabilities of an organization in such a manner that it can attain and sustain an optimum level of performance.

Bush, William R. "Systems Analysis: A Method for Logical Decision Making," Planning for Effective Utilization of Technology in Education, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968.

Bush discusses the four stages which he considers to be essential in systems analysis:

- (1) The identification of needs and requirements.
- (2) The identification of systems concepts.
- (3) The evaluation of the feasibility of the system.
- (4) The definition of a baseline or model system.

Cahn, Frances. "United States Experience in Planning and Providing for the Needs of Children and Youth," Planning for the Needs of Children in Developing Countries, Herman D. Stein (ed.). United Nations Children's Fund, 1965.

The following are considered to be essential to planning: funds, personnel, research, coordination, the assurance that social policies are supported by fiscal policies, and the understanding and subsequent action of the citizenry.

Campbell, Alan K. "Politics of University Involvement in Social Change," Political Backgrounds of Adult Education: The University in Urban Society. Brookline, Mass.: Center for the Study of Liberal Education of Adults.

The author discusses the following points: the ideological environment for social change; political institutions, power structure, and planning change; and decision making processes and planning.

Capelle, Recteur Jean. "Education - An Investment in People," Lectures and Methodological Essays on Educational Planning. Paris, France: Directorate for Scientific Affairs, Organization for Economic Co-Operation and Development, 1966.

The author discusses two stages in drawing up a plan: the preparation of the decision which sets out the aims and scope of the plan, and the construction of the plan itself.

Carlson, Richard O. "Barriers to Change in Public Schools," Change Processes in the Public Schools, Richard O. Carlson, et al. Eugene, Oreg.: The Center for the Advanced Study of Educational Administration, 1965.

Carlson discusses the following three barriers to change: the absence of a change agent, a weak knowledge base, and domestication of public schools.

Carpenter, C. R. "Contextual Research," Novel Strategies and Tactics for Field Studies of New Educational Media Demonstrations, Sidney C. Eboch (ed.). Columbus, Ohio: Ohio State University, 1965.
(ED 003 120)

According to Carpenter, there are three basic purposes of contextual or field research:

- (1) To test the validity and practicability of various educational ideas, concepts, or theories.
- (2) To modify the existing theories.
- (3) To create new hypotheses.

These functions are syncretic rather than analytic. He then proceeds to describe eight functions and eleven difficulties of field studies.

Carpenter, C. R. "Society, Education and Technology, Part Two: On Planning Developments in Education," Planning for Effective Utilization of Technology in Education, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968.

Carpenter describes the general purpose of planning as the defining of limits within which varied but reasonable alternatives are set. From these alternatives may then be selected programs which will meet old needs and demands for solutions to new problems. He also describes the operation of a planning and development task force.

Carrere, Maximo Halty. "Some Aspects of Educational Planning in Latin America," Problems and Strategies of Educational Planning, Raymond F. Lyons (ed.). Paris, France: UNESCO, 1965.

Political, conceptual and administrative obstacles to planning are discussed.

Chin, Robert. "Basic Strategies and Procedures in Effecting Change," Planning and Effecting Needed Changes in Education, Edgar L. Morphet and Charles O. Ryan (eds.). New York: Citation Press, 1967.

The author discusses the contribution of Miles and Bennis to the study of educational change and then considers three approaches to change: empirical-rational approaches based on reason and utilitarianism; normative-reeducative approaches based on attitude change; and power approaches based on compliance.

Chin, Robert. "Models and Ideas about Changing," Media and Educational Innovation, W. C. Meierhenry (ed.). Lincoln, Nebr.: University of Nebraska, 1964. (ED 003 134)

In this essay, the viewpoint of the behavioral scientist is taken. Chin lists five principles that offer some bases to a approach the problem. He discusses the following approaches to bring about change:

- (1) Education and specialists (Tell).
- (2) Innovation (Start).
- (3) Communication, media, and influence (Sell).
- (4) Money theories (Buy).
- (5) Planned Change (Inter-relation).

Clark, David L. "Educational Research: A National Perspective," Educational Research: New Perspectives, Jack A. Culbertson and Stephen P. Hencley (eds.). Danville, Ill.: Interstate Printers and Publishers, Inc., 1963.

Clark has observed that in fields where research has had a substantial impact on practice, the following circumstances were present:

- (1) Extensive support was available for basic research in related disciplines.
- (2) Extensive support was available for basic and applied research in the field itself.
- (3) A system for storage and retrieval of new knowledge existed.
- (4) Adequate training facilities were available to insure a flow of competent investigators.
- (5) The means existed for preparing research findings for field testing.
- (6) An extensive program existed for dissemination to practitioners.

Clark, David L. "Educational Research and Development: The Next Decade," Implications for Education of Prospective Changes in Society, Edgar L. Morphet and Charles O. Ryan (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project. 1967.

Clark states that educational research includes three areas: the inquiring into fields pertaining to education; the investigation of problems which deal directly with educational matters, and the gathering of operational and planning data. Development involves three types of persons: inventors, engineers, and product testers, while diffusion is accomplished by those persons who make educators aware of the existence of an innovation, demonstrate its use in educational systems, and train persons in its use. Regional laboratories exert pressure on local educational agencies to encourage them to improve their practices.

Clark, David L. "The Engineering of Change in Education," Interim Report, Proceedings of the Conference on the Implementation of Educational Innovations. Santa Monica, Calif.: System Development Corporation, 1964.

Clark discusses the question of evolutionary versus planned change; i. e., whether or not the change is merely the result of pressures of existence.

Clark, David L., and Egon G. Guba. "An Examination of Potential Change Roles in Education," Rational Planning in Curriculum and Instruction. Washington, D. C.: Center for the Study of Instruction, National Education Association, 1967.

The authors present their model of change and make recommendations for its implementation.

Clemens, Thomas D. "Dissemination of Research Results," The Role of Educational Research in Educational Change, Egon G. Guba (ed.). Bloomington, Ind.: The National Institute for the Study of Educational Change, 1967. (ED 012 505)

Five primary audiences for educational research dissemination programs are discussed: the researcher; the educational decision maker and practitioner; the general lay public; the producer and distributor of educational materials and resources; and the legislator.

Cook, Desmond L. "Applications of PERT to Education," National Vocational-Technical Education Seminar on the Development and Coordination of Research of State Research Coordinating Units, Virgil E. Christensen (ed.). Columbus, Ohio: Ohio State University, 1966. The author considers PERT to be particularly effective for non-programmatic activities, such as R & D activities.

Coombs, Philip H. "Some Reflections on Educational Planning in Latin America," Problems and Strategies of Educational Planning. Raymond F. Lyons (ed.). Paris, France: UNESCO, 1965. Educational planning is presented as an ideal concept. Concentrating especially on the political aspect, the author explains the foundations for planning.

Crow, Wayman J. "Characteristics of Leaders Who Are Able to Promote Change," Media and Educational Innovation, W. C. Meierhenry (ed.). Lincoln, Nebr.: University of Nebraska, 1964. (ED 003 134) The essential argument of this article revolves around an enlargement of the concept of leadership to include all acts which produce change in the thoughts or actions of others. Three levels of change are discussed: individual change, group change, and change in the social system.

Culbertson, Jack. "State Planning for Education," Planning and Effecting Needed Changes in Education, Edgar L. Morphet and Charles O. Ryan (eds.). New York: Citation Press, 1967. The author states that it is only in the last twenty years that precise techniques have been developed to support planning. He also mentions that the three interrelated traditions of operations research, planning-programming-budgeting system, and educational planning based upon manpower projections encompass most of the techniques developed. He then describes the various characteristics of these three traditions, along with six functions which should be performed by the state planning agencies.

Cunningham, Luvern L. "Leadership and Control of Education," Implications for Education of Prospective Changes in Society, Edgar L. Morphet and Charles O. Ryan (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1967. Cunningham discusses the various functions of regional educational laboratories. The more important of these functions include the following:
(1) Attempting to relate to all agencies involved in education.

- (2) Serving both public and non-public schools, and both state departments and local school districts.
- (3) Dissemination of research findings to the public.
- (4) Searching out and analyzing of educational problems that are either under discussion or not yet recognized.
- (5) Stimulation of the growth of new supplementary centers.
- (6) Allocation of funds to agencies within the jurisdiction of the laboratory.

Dahling, Randall L. "Shannon's Information Theory: The Spread of an Idea," Studies of Innovations and of Communication to the Public, Wilbur Schramm (ed.). Stanford, Calif.: Institute for Communications Research, Stanford University, 1962.

Dahling concludes that an idea is often drawn from a flurry of current related activity; and, as it develops, it gains impetus and speed of adoption from the same surrounding activity that gave rise to it.

Dees, Bowen C. "Innovation: Invention Plus Implementation," Fostering and Reinforcing Innovative Behavior of Selected School Personnel. Albuquerque, N. Mex.: The Southwestern Cooperative Educational Laboratory, Inc., May, 1967. (ED 013 683)

This article states that meaningful innovation requires that useful inventions be effectively implemented. The author feels that teachers can and should be innovators.

Diez-Hochleitner, R. "Educational Planning," Economic and Social Aspects of Educational Planning. Paris, France: UNESCO, 1964.

The author feels that planning is an instrument, not a goal or an end in itself. It is an attitude reflecting the desire for orderly change and the strategy by which this change can be brought about. Educational planning is a cohesive force that co-ordinates and directs the many different components of an educational system and ensures that widely accepted long-range goals are approached more objectively.

Edling, Jack V. "Aesop Edling's Fable," Novel Strategies and Tactics for Field Studies of New Educational Media Demonstrations, Sidney C. Eboch (ed.). Columbus, Ohio: Ohio State University, 1965. (ED 003 120)

Edling presents a fable with the following moral: "When you test something new, make certain that you have something new to test and the means with which to test it. He urges consideration of the total change process along with all of its ramifications.

Edling, Jack V. "Role of Newer Media in Planned Change," Media and Educational Innovation, W. C. Meierhenry (ed.). Lincoln, Nebr.: University of Nebraska, 1964. (ED 003 134)

Edling suggests that, in spite of their great potential, the newer media have been seriously underestimated as an agent of change.

Eide, Kjell. "Organization of Educational Planning," Educational Planning, Don Adams (ed.). Syracuse, N. Y.: Syracuse University Press, 1964.

Planning is viewed as a systematic application of research to problems of policy; it constitutes the main link between research and policy-making. Its two aims are the stimulation of change and the promotion of consistency in policy.

Elliott, Eugene B., and Earl E. Mosier. "Organization of Planning for Education," American Education in the Postwar Period: Structural Reorganization, The Forty-Fourth Yearbook of the National Society for the Study of Education, Nelson B. Henry (ed.). Chicago, Ill.: The University of Chicago Press, 1945.

Twelve underlying principles and six obstacles to planning are presented.

Ericksen, Stanford C. "The Role of the Administrator in the Improvement of Instruction," Administration and Innovation, John Weber (ed.). Ann Arbor, Mich.: Midwest Community College Leadership Program, 1966. (ED 014 299)

The author discusses the following issues:

- (1) Centralization vs. decentralization.
- (2) Difference between teaching and learning.
- (3) Efficiency vs. the quality of educational change.
- (4) Hardware vs. software.
- (5) Teaching vs. research and/or service.

Fallon, Berlie. "Administrative Support of Innovation in the Public Schools," Creating a Climate for Innovation, Ralph O. Teter and Tom Pate, Jr. (eds.). Pearland, Tex.: Gulf Schools Supplementary Education Center, 1967. (ED 018 208)

The author discusses two approaches which facilitate change: the pragmatic approach in which staff members are involved in the study and development of planning; and the directed approach in which a package-deal is handed to the public schools on a vertical basis.

Forbes, John. "Resources Available to Public School Personnel for Initiating Innovative Programs in Occupational Education through the Regional Education Laboratories," Seminar on Planning Developmental and Related Programs in Occupational Education, Charles H. Rogers and C. Cayce Scarborough (eds.). Raleigh, N. C.: Center for Occupational Education, North Carolina State University of Raleigh, 1966.

The author feels that two major premises underlie the REL concept: a new kind of partnership; and a new institution capable of beginning the research cycle and carrying it through to its logical conclusion: implementation.

Fraser, Thomas M., Jr. "Sociocultural Parameters in Directed Change," A Casebook of Social Change, Arthur H. Niehoff (ed.). Chicago, Ill.: Aldine Publishing Company, 1966.

Fraser criticizes the fact that most development programs have neither the resources nor the time for full-scale socio-cultural research.

Fraser, Thomas M., Jr. "A Literacy Campaign in Sarawak," A Casebook of Social Change, Arthur H. Niehoff (ed.). Chicago, Ill.: Aldine Publishing Company, 1966.

Fraser stresses the importance of making the innovator understand how the changee will react to the new idea.

Gage, N. L. "Problems Associated with the Organization of Research Institutes," The Role of Educational Research in Educational Change, Egon G. Guba (ed.). Bloomington, Ind.: The National Institute for the Study of Educational Change, 1967. (ED 012 505)

Gage analyzes four general problems:

- (1) Those which relate to the extent to which research workers are free to initiate research rather than to conform to an organized program of research.
- (2) Those which relate to the balance between pure and applied research.
- (3) Those which arise from the relationship of research institutions to universities, teacher training establishments, etc.
- (4) Those which bear upon the extent to which interdisciplinary research can be carried out.

Gallaher, Art, Jr. "Directed Change in Formal Organizations: The School System," Change Processes in the Public Schools, Richard O. Carlson, et al. Eugene, Oreg.: The Center for the Advanced Study of Educational Administration, 1965. (ED 003 134)

Gallaher defines and discusses the pragmatic-advocate model and the utopic-advocate model. He feels that the administrator is a middle-man and cannot serve adequately as an advocate of change.

Gallaher, Art, Jr. "The Role of the Advocate and Directed Change," Media and Educational Change, W. C. Meierhenry (ed.). Lincoln, Nebr.: University of Nebraska, 1964.

The author views change from the viewpoint of an anthropologist. Gallaher defines diffusion, acculturation, directed culture change, innovation, dissemination, and integration. He draws a distinction between a change agent and advocate of change and presents two advocate models along with their various strengths and weaknesses.

Gerbner, George G. "The Role of Media in Communicating Results of Research," Media and Educational Innovation, W. C. Meierhenry (ed.).

Lincoln, Nebr.: University of Nebraska, 1964. (ED 003 134)

Gerbner discusses various considerations in planning for media use:

- (1) The broadest cultural context in which educational change occurs with special consideration of the mass media.
- (2) The possibility of conflict with the existing institutional structures inherent in some uses of new media and new technologies.
- (3) The effect of the supervisory relationships within the schools upon innovation, and, therefore, its implications for media strategy.
- (4) The fact that even if teachers rarely originate new ways of teaching, they must be supported, assisted, and reinforced in their practice.

Gersfield, Joseph. "The Faculty and Institutional Climate," Climates of Learning and the Innovative Process, Laurence C. Porter (ed.). Yellow Springs, Ohio: Union for Research and Experimentation in Higher Education, 1967. (ED 014 306)

Gersfield mentions four trends in higher education and their implications in terms of innovation:

- (1) The democratization of higher education.
- (2) The urbanization of higher education.
- (3) The specialization of the faculty.
- (4) The nationalization of the academic world.

These four trends imply a greater autonomy and consequently a greater conservatism among faculty. They also imply a decline of the autonomy of student cultures and an increase in the ideals of professional standards.

Goldhammer, Keith. "Local Provisions for Education: The Organization and Operation of School Systems and Schools," Emerging Designs for Education, Edgar L. Morphet and David L. Jessor (ed.). Denver, Colo.: Designing Education for the Future: An Eight State Project, 1968.

The author reports that management in educational organizations is the key instrument for maintaining the adaptability of school programs and procedures; that proper supervision is the chief means for the maintenance and improvement of instructional excellence; and that evaluation and planning do not take place within schools unless there are managerial personnel who are directly allocated the responsibility for performing such functions. He sees the major components of a functional local educational organization as the following: instructional facilitation, adaptive system, and administrative support system.

Goodlad, John I. "The Curriculum," Rational Planning in Curriculum and Instruction. Washington, D. C.: Center for the Study of Instruction, National Education Association, 1967.

The author states that the tasks of developing curriculum designs

involve such a unique combination of theoretical and practical considerations and talents that they appear to be appropriate for new educational laboratories.

Goodson, Max R. "Models for Effecting Planned Educational Change," Project MODELS: Maximizing Opportunities for Development and Experimentation in Learning in the Schools, Herbert J. Klausmeier, et al. Madison, Wis.: Research and Development Center for Learning and Re-Education, University of Wisconsin, 1966. (ED 010 214)

Goodson states that the R & D Center is involved in three functions for the improvement of education: research, development, and diffusion and utilization. He makes and discusses the following nine conjectures about educational change:

- (1) Change and improvement in education.
 - (2) Educational change as caused by several factors.
 - (3) The desirability of multiple and concurrently applied change efforts.
 - (4) The school as an organization.
 - (5) The reality of human functioning.
 - (6) Necessity for adaptation as a mode of changing.
 - (7) The criterion of partly autonomous and continuing adaptability.
 - (8) The cyclical sequencing of critical processes.
 - (9) A partnership of institutions for educational improvement.
- For Goodson, there are four main objectives of models for effecting planned educational change:

- (1) The development of a taxonomy for educational innovations and for relating innovations to the change requirements of the school as an organization.
- (2) The provision of descriptive documentation that may be analyzed for insights into problems and ways of meeting problems that arise in connection with the establishment and operation of new structures in school systems.
- (3) The ascertaining of the effects of laboratory training in human relations and problem-solving upon a school system committee attempting to function as a change-agent.
- (4) The ascertaining of the effects of consultation and the forms in which consultation may be provided to a school system change-agent team when an outside agency endeavors to aid a team in planning and executing its change attempts.

Gouldner, Alvin W. "Reciprocity and Autonomy in Functional Theory," System, Change and Conflict, N. J. Demerath and Richard A. Peterson, (eds.). Glencoe, N. Y.: The Free Press, 1967.

In the analysis of system changes, a distinction is commonly made between endogenous and exogenous sources of change, between forces internal and external to the system. The author states that exogenous and endogenous factors are not qualitatively, but quantitatively, different. That is, they are simply at opposite ends of the same continuum of interdependence and functional

autonomy. Hence, specific system parts can be both partly exogenous and partly endogenous. Thus, if exogenous forces are peculiarly important to the understanding of system change, as they are commonly held to be in Parson's and other system models, any element in the system may be important in understanding system change to the extent that it may be exogenous to a degree, although all need not be equally so.

Gregg, Russell T. "The Administrative Process," Administrative Behavior in Education, Roald F. Campbell and Russell T. Gregg (eds.). New York: Harpers Brothers, 1957.

Gregg views research as the hand-maiden of educational planning.

Gregoire, Roger. "Conditions for Effective Educational Planning," Problems and Strategies of Educational Planning, Raymond F. Lyons (ed.). Paris, France: UNESCO, 1965.

An educational development plan is considered in three ways: as the result of a series of successive choices, as a collective task, and as a means of action.

Guba, Egon G., and John J. Horvat. "Concluding Note," The Role of Educational Research in Educational Change, Egon G. Guba (ed.). Bloomington, Ind.: The National Institute for the Study of Educational Change, 1967. (ED 012 505)

The major characteristics of American educational research along with their virtues and defects are summarized. Some consequences of educational change and alternative avenues for redevelopment are also put forth.

Hansen, Kenneth H. "Planning and Change: Design --- Decision --- Action," Cooperative Planning for Education in 1980, Edgar L. Morphet and Charles O. Ryan (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968. (ED 018 008)

The author discusses five factors which must be studied to bring about changes in education:

- (1) The social cultural matrix in which one will be operating.
- (2) How to organize our educational planning for change.
- (3) How to utilize the most effective change processes.
- (4) How to employ the value system in deciding what action to take.
- (5) How to translate these decisions into action at each level of school organization.

He also lists three kinds of linkages that are needed for change: structural linkage among all agencies; linkage of all concerned groups; and linkage of the necessary steps in change.

Hansford, Byron W. "Foreword," Planning for Effective Utilization of Technology in Education, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968.

The author feels that an ordering of our priorities is necessary if an orderly process of change is to occur. Such an ordering requires the development and implementation of a sound and defensible process which facilitates planning, since it is through the process of planning that change is anticipated and prepared for.

Harbison, Frederick H. "Strategies for Human Resource Development," Lectures and Methodological Essays on Educational Planning. Paris, France: Directorate for Scientific Affairs, Organization for Economic Cooperation and Development, 1966.

The author explains the following six areas of choice:

- (1) The educational pyramid: what portion of the resources are to be devoted to primary, secondary, and higher education, respectively.
- (2) The problem of quantity versus quality in education.
- (3) The choice of science and engineering versus the arts, humanities and law.
- (4) Training: how much training should be done in formal vocational schools, and how much should be given informally by the employer.
- (5) Incentives needed to provide the right distribution of manpower.
- (6) The moral issue: the question of whether a human resource developmental program should be based primarily upon the needs of the state, or whether it should be designed primarily in the interest of the individual.

Harris, Ben M. "Strategies for Instructional Change: Promising Ideas and Perplexing Problems," The Supervisor -- Agent for Change in Teaching, James Rath and Robert R. Leeper (eds.). Washington, D. C.: Association for Supervision and Curriculum Development, 1966.

The author recommends that research be done on supervision. He lists the following four problems of change:

- (1) Schools do not have recognized change agents.
- (2) Schools are so highly domesticated as social institutions that enormous resources will be required for the cultivation of change.
- (3) Instructional change in the school setting is inevitably a matter of change in people.
- (4) The bureaucratic nature of school organizations and the pivotal position of administrators in the balance of power present special problems.

Haskew, Laurence D. "Major Implications for Education of Prospective Changes in Society. Another Perspective," Implications for Education of Prospective Changes in Society, Edgar L. Morphet and Charles O. Ryan (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1967.

Research, development and provision of technical adequacy are

seen as features of the school enterprise which must enter upon a period of unprecedented expansion. Regional laboratories and similar organizations are seen as improvisations upon existing structures and not as elements in a reorganized structure, which, the author feels, is needed. The author cautions against the adopting of devices worked out by others as "solutions" in themselves. Planning at its most productive level is not adopting plans, but producing them.

Haskew, Laurence D. "What Lies Ahead?" Cooperative Planning for Education in 1980, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968. (ED 018 008)

The author makes the following comments:

- (1) The educational system is particularly vulnerable to the substitution of change in appearance for change in substance.
- (2) It is not the structure which constitutes the achievement, but what transpires within that structure.
- (3) It is through the processes of planning and executing that the challenge of the future will be met.

Haswell, Harold. "Dissemination of Research and Development Information," National Vocational-Technical Education Seminar on the Development and Coordination of Research of State Research Coordinating Units, Virgil E. Christensen (ed.). Columbus, Ohio: Ohio State University, 1966. (ED 011 042)

The author describes ERIC.

Hawley, Amos H., and Basil G. Zimmer. "Resistance to Unification in a Metropolitan Community," Community Political Systems, D. Janowitz (ed.). Glencoe, N. Y.: The Free Press, 1961.

The authors conclude that an understanding of the nature of proposed changes and the consequences which might ensue from them is imperative before a favorable response to the proposed changes can be secured.

Hayward, Beresford. "The Implemented Educational Plan," Educational Planning, Don Adams (ed.). Syracuse, N. Y.: Syracuse University Press, 1964.

Hayward discusses stages in the planning process, the governing considerations for implementing educational plans, and major elements associated with the capacity of national educational agencies to initiate and sustain an effective planning process.

Heathers, Glen. "Guidelines for Reorganizing the School and the Classroom," Rational Planning in Curriculum and Instruction. Washington, D. C.: Center for the Study of Instruction, National Education Association, 1967.

Because there is an insufficient number of educational change-agents from outside the schools, the education of local school leaders for their roles as key agents of change has become a matter of high priority.

Herman, Willis W. "Technology and Educational Policy Research," Planning for Effective Utilization of Technology in Education, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968.

Educational policy research, which tends to be problem-centered rather than discipline-centered, often emphasizes strategic rather than tactical questions.

Hield, Wayne. "The Study of Change in Social Science," System, Change, and Conflict, N. J. Demerath and Richard A. Peterson (eds.). Glencoe, N. Y.: The Free Press, 1967.

The problem of change involves the reduction of intensified need-dispositions or the alteration of the expectations of subjects with the interest in restoring a condition of equilibrium or social order.

Higgins, Benjamin. "General Summary of the Discussions," Development Plans and Programmes. Studies in Development Number 1. Paris, France: Development Centre of the Organization for Economic Co-Operation and Development, 1964.

According to Higgins, the evaluation of progress, the appraisal of individual projects and the appraisal of the general efficiency of implementation is really a part of the planning process itself.

Hitch, Charles J. "Problems of Application of the PPB System to Education," Occupational Education: Planning and Programming, Arnold Kotz (ed.). Vol. I. Menlo Park, Calif.: Stanford Research Institute, 1967.

PPB is seen as a combination of two management techniques which are related and mutually supporting, but distinct: program budgeting or programming, and systems analysis.

Hoban, Charles F. "Dial 'T' for Tryst," Media and Educational Innovation, W. C. Meierhenry (ed.). Lincoln, Nebr.: University of Nebraska, 1964. (ED 003 134)

Hoban focuses on the legitimating, delineating and monitoring functions of research in innovation.

Hodgkinson, Harold L. "Structure and Climate: A New View," Climates of Learning and the Innovative Process, Laurence C. Porter (ed.). Yellow Springs, Ohio: Union for Research and Experimentation in Higher Education, 1967. (ED 014 306)

The author recommends that the traditional pyramidal form and positional authority structure be replaced by situational authority.

Holland, John. "Program Budgeting Systems and Educational Decision-Making," Educational Planning, Cicely Watson (ed.). Toronto: Ontario Institute for Studies in Education, 1967. (ED 016 303)

The author states that PBS does not allow a dichotomous classification of management responsibilities into planning activities and current decision-making.

Holzner, Burkhardt. "The Research and Development Center in the United States," Emerging Strategies and Structures for Educational Change. Toronto, Canada: Ontario Institute for Studies in Education, 1966.

In delineating the functions of a regional educational laboratory, Holzner states that although each laboratory should contain a research division, it should emphasize the performing of services and disseminating of information.

Hopkins, John E. "Recruiting and Training of Staff," The Role of Educational Research in Educational Change, Egon G. Guba (ed.). Bloomington, Ind.: The National Institute for the Study of Educational Change, 1967. (ED 012 505)

Hopkins presents an extensive review of current programs and practices.

Horn, Francis H. "A University President Looks at Institutional Research," The Role of Institutional Research in Planning, L. Joseph Lins (ed.). Madison, Wis.: University of Wisconsin, 1963. (ED 016 367)

In his discussion of an institutional research office, the author feels that it should be an administrative agency of the president's office, and not an arm of the faculty.

Hornbostel, Victor O. "Some Aspects of Research and Innovation in Elementary and Secondary Education," Fostering and Reinforcing Innovative Behavior of Selected School Personnel. Albuquerque, N. Mex.: The Southwestern Cooperative Educational Laboratory, Inc., May, 1967. (ED 013 683)

In his description of research and innovation, Hornbostel recommends that teachers should become, or be released to become, researchers and evaluators.

Horowitz, Harold. "A Lawyer's View," A Pilot Center for Educational Policy Research, Marvin Adelson, et al. Part II. Santa Monica, Calif.: System Development Corporation, February, 1968. (ED 014 623)

Horowitz examines the question of segregation and its effects on quality education.

Horowitz, Irving Louis, "Consensus, Conflict, and Co-operation," System, Change, and Conflict, N. J. Demerath and Richard A. Peterson (eds.). Glencoe, N. Y.: The Free Press, 1967. (ED 014 623)

Horowitz discusses the implications of the terms "consensus" and "cooperation." Consensus stands for agreement internally, i. e., in terms of shared perspectives, agreements on the rules of association and action and a common set of norms and values. Cooperation for its part makes no demands on role uniformity,

but only upon procedural rules. Cooperation concerns the settlement of problems in terms which make possible the continuation of differences and even fundamental disagreements. Consensus is agreement on the content of behavior, while cooperation necessitates agreement only on the form of behavior. Cooperation concerns toleration of differences, while consensus demands abolition of these same differences.

Horvat, Blazko. "Planning in Yugoslavia," Development Plans and Programmes. Studies in Development Number 1. Paris, France: Development Centre of the Organization for Economic Co-Operation and Development, 1964.

There is no one correct kind of planning, according to Horvat, for planning can be done in a variety of ways. The problem is the discovery of the most appropriate and effective method of planning for any given country.

Howsam, Robert B. "Problems, Procedures and Priorities in Designing Education for the Future," Cooperative Planning for Education in 1980, Edgar L. Morphet and Charles O. Ryan (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968. (ED 018 008)

The author feels that the literature from the Cooperative Project for Educational Development represents the best exposition of the normative--reeducative method. He states that the normative--reeducative method, which emphasizes values, has not been used as extensively as it should be.

Huefner, Robert P. "Strategies and Procedures in State and Local Planning," Planning and Effecting Needed Changes in Education, Edgar L. Morphet and Charles O. Ryan (eds.). New York: Citation Press, 1967.

The author presents four concepts in planning: management tool, coordinated programs, up-to-date guidance, and competent analysis. He gives the following conflicts in planning: centralization vs. decentralization, consultants vs. staff, and plan vs. planning. The entire article emphasizes the importance of goals in planning. It is suggested that the staffs responsible for executing various elements of comprehensive plans should be given the responsibility for proposing the plans for their programs. The establishment of a planning process as a management tool is seen as the most important contribution of initial state plans. Six sequential steps in planning for change are the following:

- (1) Identification of problems.
- (2) Diagnosis of problems.
- (3) Clarification of the diagnostic findings.
- (4) Search for solutions.
- (5) Mobilizing for change.
- (6) Making the actual change decisions.

Hyland, William. "Educational Planning in Ireland," Educational Planning, Cicely Watson (ed.). Toronto, Canada: Ontario Institute for Studies in Education, 1967. (ED 016 303)

Hyland discusses the seven elements of an educational plan:

- (1) The formulation of objectives in general terms.
- (2) The formulation of objectives in operational terms.
- (3) The formulation and quantification of the (hypothetical) implications of the second stage in terms of the output required from the educational system.
- (4) The general evaluation of the relationship of output to input within the educational system.
- (5) The formulation of strategies to generate the incremental resources necessary to provide required inputs and the optimization of the use of these resources.
- (6) The formulation and quantification of the presumed input implications of the required outputs in each time phase.
- (7) The phasing of plans, the articulation of these plans to annual budgets, and the specification of annual targets.

Jackson, Philip W. "Keeping an Eye on the Teacher: Comments on Classroom Observing," Novel Strategies and Tactics for Field Studies of New Educational Media Demonstrations, Sidney C. Eboch (ed.). Columbus, Ohio: Ohio State University, 1965. (ED 003 120)

Problems and suggestions for classroom observation are discussed.

Jaffe, Jack. "A System Approach to Policy Making," A Pilot Center for Educational Policy Research, Marvin Adelson, et al. Part II. Santa Monica, Calif.: System Development Corporation, February, 1968. (ED 014 622)

Jaffe presents an example of the possible application of system analysis to the policy-making process.

Johns, R. L. "State Organization and Responsibilities for Education," Implications for Education of Prospective Changes in Society, Edgar L. Morphet and Charles O. Ryan (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1967.

Johns finds that most local school systems spend far more staff time in complying with federal regulations to obtain 8% of their funds than they spend in complying with state regulations to obtain 39% of their funds.

Jongeward, R. E. "The Research and Development Concept - What Is There to Be Done and Who Can Do It Best?" National Vocational-Technical Education Seminar on the Development and Coordination of Research of State Research Coordinating Units, Virgil E. Christensen (ed.). Columbus, Ohio: Ohio State University, 1966. (ED 011 042)

The following five approaches to the implementation of research into action are discussed:

- (1) Higher-education-oriented approach where the college and university experts "do the research and tell the answers."

- (2) Prescribed-curriculum approach.
- (3) Product-or-gadget-orientation approach.
- (4) "Dissemination-of-research-information" idea
- (5) Efficiency-angle-cost-benefit analysis.

Jung, Charles C. "The Trainer Change-Agent Role within a School System," Change in School Systems, Goodwin Watson (ed.). Washington, D. C.: National Cooperative Project for Educational Development, National Training Laboratories, National Education Association, 1967.

The author discusses the role of the internal change agent.

Jung, Charles C., Robert Fox, and Ronald Lippitt. "An Orientation and Strategy for Working on Problems of Change in School Systems," Change in School Systems, Goodwin Watson (ed.). Washington, D. C.: National Cooperative Project for Educational Development, National Training Laboratories, National Education Association, 1967.

The authors emphasize that not enough attention has been given to the roles necessary to deal with identifying and planning to cope with change needs.

Kaser, Michael C. "Planning for Children in the Context of Social and Economic Development Programmes," Planning for the Needs of Children in Developing Countries, Herman D. Stein (ed.). United Nations Children's Fund, 1965.

The author describes the following four steps in the preparation of a social and economic development program:

- (1) A survey of the resources which can contribute to social and economic development.
- (2) A listing of the various objectives of the plan as set up by the national (or federal) government, by regional and local authorities, by international agencies or foreign advisory missions, by non-governmental organizations, or by individuals.
- (3) A comparison of the objectives with one another followed by a realistic choice of priorities.
- (4) A review of the chosen objective in the light of the instruments available for the implementation of the plan.

Katz, Elihu. "The Social Itinerary of Technical Change: Two Studies on the Diffusion of Innovation," Studies of Innovation and of Communication to the Public, Wilbur Schramm (ed.). Stanford, Calif.: Institute for Communication Research, Stanford University, 1962.

Katz concludes that one cannot assume that an innovation will be adopted simply because information about its existence is available. Therefore, additional factors must be sought to explain both the decision to adopt and the reasons for time differentials with regard to adoption.

Kotz, Arnold. "Major Recommendations and Conclusions," Occupational Education: Planning and Programming, Arnold Kotz (ed.). Vol. I.

Menlo Park, Calif.: Stanford Research Institute, 1957.

The planning process is described. Objectives are defined as those general purposes pursued over a long period and usually not quantified; goals are set for specific, shorter time frames and are usually quantified. The importance of a full-time planning staff is emphasized.

LeBreton, Preston P. "Daily Summary of Planning Principles," Institute on Planning, Richard B. Engen (ed.). Salem, Oreg.: Oregon State Library.

Various administrative models are presented with their implications for planning. LeBreton describes the planning-implementation model, and lists fifteen dimensions of planning.

Lecht, Leonard A. "Strategic Variables in Planning," Planning and Effecting Needed Changes in Education, Edgar L. Morphet and Charles O. Ryan (eds.). New York: Citation Press, 1967.

The social-engineering approach, the strategic-variables approach, performance planning, and achievement planning are defined and discussed.

LeGuay, Francois. "Political and Administrative Problems of Implementing the French Plan," Development Plans and Programmes. Studies in Development Number 1. Paris, France: Development Centre of the Organization for Economic Co-Operation and Development, 1964.

Planning serves to make all the objectives add up to a coherent whole, to reconcile them with each other, to choose between them where choice is inevitable, and to coordinate the various measures which will make them possible.

Lichfield, Nataniel, and Julius Margolis. "Benefit-Cost Analysis as a Tool in Urban Government Decision Making," Public Expenditure Decisions in the Urban Community, Howard G. Schaller (ed.). Washington, D. C.: Resources for the Future, Inc., 1962.

A decision is defined as a choice among feasible alternatives, i. e., the feasibility condition arising because of technical, legal, and organizational constraints.

Lionberger, Herbert F., "Organizing for Implementing Changes in Education: Some Implications from Agriculture and Diffusion Research," National Vocational-Technical Education Seminar on the Development and Coordination of Research of State Research Coordinating Units, Virgil E. Christensen (ed.). Columbus, Ohio: Ohio State University, 1966.
(ED 011 042)

The author presents a comprehensive review of the literature on organizing for implementing educational changes. The following four necessary functions are discussed:

- (1) Organizing and validating scientific information and innovations.
- (2) Disseminating innovations and information to potential users.

- (3) Teaching skills to change agents and potential adopters.
- (4) Legitimizing innovations and information.

Lionberger, Herbert F. "The Diffusion Research Tradition in Rural Sociology and Its Relation to Implemented Change in Public School Systems," Media and Educational Innovation, W. C. Meierhenry (ed.). Lincoln, Nebr.: University of Nebraska, 1964. (ED 003 134)

Lionberger lists eight major research achievements in agricultural diffusion research, presents nine deficiencies of diffusion research, discusses six action implications for education, and lists three research implications for education.

Lipham, James M. "Leadership and Administration," Behavioral Science and Educational Administration, Daniel E. Griffiths (ed.). The Sixty-Third Yearbook of the National Society for the Study of Education. Chicago, Ill.: The University of Chicago Press, 1964.

Leadership is defined as the initiation of a new structure or procedure for accomplishing or changing an organization's goals and objectives. The administrator is identified as the individual who utilizes existing structures or procedures to achieve an organizational goal or objective.

Lippitt, Ronald. "Roles and Processes in Curriculum Development and Change," Strategy for Curriculum Change, Robert R. Leeper (ed.). Washington, D. C.: Association for Supervision and Curriculum Development, 1965.

The author analyzes some special features of the problem of educational change. In comparing educational settings with those in agriculture, medicine, industry, and public health, he suggests several ways in which change in education is somewhat different from and more complex than change in these other fields.

Lockwood, David. "Some Remarks on the 'Social Systems'," System, Change, and Conflict, N. J. Demerath and Richard A. Peterson (eds.). Glencoe, N. Y.: The Free Press, 1967.

It is necessary to single out relatively stable points of reference, or "structural" aspects, of the system under consideration, and then to study the processes whereby such structures are maintained.

Loomis, C. P. "Social Change and Social Systems," Sociological Theory, Values and Sociocultural Change, E. H. Tiryakian (ed.). Glencoe, N. Y.: The Free Press, 1963.

The author suggests that linkage between systems is the essential process in an effort to achieve planned social change.

Lyons, Raymond F. "The Role of Cost Analysis in Educational Planning," Problems and Strategies of Educational Planning, Raymond F. Lyons, (ed.). Paris, France: UNESCO: 1965.

Cost analysis is considered to be a vital element in educational planning in three important respects. It must ensure, first, that the total cost of educational expansion as laid down by the plan is realistic; second, that the structure of the expenditure between the different levels and types of education corresponds to national needs; and third, that the detailed allocation of funds as between the different productive elements of the system is consistent with the most effective use of money and educational resources.

Lyons, Raymond F. "The Training and Use of Educational Planning Personnel," Educational Planning, Cicely Watson (ed.). Toronto: Ontario Institute for Studies in Education, 1967. (ED 016 303)

Lyons describes five hard core components of the planning process;

- (1) The diagnosis and appraisal of the existing educational system, its performance and main problems.
- (2) The determination of basic policies and the setting of basic directions, priorities and targets.
- (3) The translation of overall targets into specific educational programs, projects and social development plans.
- (4) The implementation of plans, problems and projects by action at the central, regional, and local levels, supported by annual budgets and external assistance.
- (5) Evaluation and revision of plans in the light of achievements and new developments.

Mallicoat, Samuel H. "Comprehensive State Planning," Institute on Planning, Richard B. Engen (ed.). Salem, Oreg.: Oregon State Library, 1965.

Mallicoat suggests methods by which planning can be linked with decision making.

Mardin, Serif. "Social Factors Affecting Educational Reforms," Lectures and Methodological Essays on Educational Planning. Paris: Directorate for Scientific Affairs, Organization for Economic Co-Operation and Development, 1966.

The author explains the concept of social demand.

Martin, William Bryan. "Inclusive Innovation," Climates of Learning and the Innovative Process, Laurence C. Porter (ed.). Yellow Springs, Ohio: Union for Research and Experimentation in Higher Education, 1967. (ED 014 306)
Martin discusses the essentialist vs. the existentialist confrontation. Although both sides are concerned with innovation, the existentialists deal largely with new means to new ends and the essentialists with new means to traditional ends.

Mason, Robert. "An Ordinal Scale for Measuring the Adoption Process," Studies of Innovation and of Communication to the Public, Wilbur Schramm (ed.). Stanford, Calif.: Institute for Communication Research, Stanford University, 1962.

Mason states that only two stages, awareness and interest, are necessary and sufficient for the adoption process rather than the five stages which are typically proposed: (1) awareness, (2) interest, (3) evaluation, (4) trial, and (5) adoption.

Mattei, Otto. "Panel Presentation," Five Regional Conferences on the Disadvantaged. Frankfort, Ky.: Kentucky State Department of Education, 1966. (ED 015 822)

Rather than attempting to change the entire system, Mattei suggests that it might be worthwhile to test the use of the school building as a central unit in the strategy for change.

McCann, Lloyd E. "Research: The Classroom Orientation," Fostering and Reinforcing Innovative Behavior of Selected School Personnel. Albuquerque, N.Mex.: The Southwestern Cooperative Educational Laboratory, Inc., May, 1967. (ED 013 683)

McCann discusses five possible phases of activities:

- (1) The recognition and description of a reasonable problem.
- (2) The exploration of possible procedures to deal with the problem.
- (3) The undertaking of the disciplined type of procedure implied by the word "research".
- (4) The final, or classroom, testing of the procedure.
- (5) The dissemination of information.

McGee, Reece. "Needed Research in Special Areas," The Role of Institutional Research in Planning, L. Joseph Lins (ed.). Madison, Wis.: University of Wisconsin, 1963. (ED 016 367)

Three imperative functions of institutional research are presented:

- (1) The filling of the pressing need for information.
- (2) The maintaining of continuing audits of the actual operation of the institution.
- (3) The continual reappraisal, in staff studies, of the goals of the institution and the means it uses to achieve them.

McPhee, Roderick F. "Planning and Effecting Needed Changes in Local School Systems," Planning and Effecting Needed Changes in Education, Edgar L. Morphet and Charles O. Ryan (eds.). New York: Citation Press, 1967.

McPhee lists seven steps in the planning process:

- (1) Anticipating future needs and pressures.
- (2) Locating and defining change requirements.
- (3) Evaluating alternatives to achieve various objectives.

- (4) Evaluating alternatives with regard to task achievement and cost.
- (5) Determining priorities.
- (6) Allocating resources.
- (7) Evaluating and reviewing the results.

Mead, Leonard C., and Egra V. Saul. "Comments and Reactions on Plans for Establishing Regional Learning Research Centers," A Research Report on Operational Plans for Developing Regional Educational Media Research Centers, C. R. Carpenter, et al. (eds.). University Park, Pa.: Pennsylvania State University, April, 1962. (ED 003 632)
The author comments that one of the biggest problems that plagues programmatic research in the behavioral sciences is the lack of long-term financing.

Meadows, Paul. "Novelty and Acceptors: A Sociological Consideration of the Acceptance of Change," Media and Educational Innovation, W. C. Meierhenry (ed.). Lincoln, Nebr.: University of Nebraska, 1964. (ED 003 134)

Meadows views the problem from the viewpoint of a sociologist. An analytical approach to a theory of change facilitation is presented in terms of the following factors: the agents of change (i. e., innovators, donors and acceptors); the agencies; and the actions of novelty.

Meadows, Paul. "Society, Education, and Technology, Part One: On Epitomizing a Society in Change," Planning for Effective Utilization of Technology in Education, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968.

According to the author, development involves both magnitude and quality.

Mechanic, David. "Some Considerations in the Methodology of Organization Studies," The Social Science of Organizations, Harold J. Leavitt (ed.). Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1963.

While reliability refers to the adequacy of operational techniques, validity refers to the extent to which the operation approximates the theoretical idea which the investigator wishes to study. These two tend to be inversely related.

Meierhenry, W. C. "Considerations Involved in the Establishment of Regional Learning Research Centers," A Research Report on Operational Plans for Developing Regional Educational Media Research Centers, C. R. Carpenter, et al. (eds.). University Park, Pa.: Pennsylvania

State University, April, 1962. (ED 003 632)

The author distinguishes among three major categories:

- (1) Basic research which includes exploratory research, hypothesis testing, and studies of new evaluation techniques;
- (2) Applied research and development which includes program development, field-suitability tests, and administrative studies; and
- (3) Dissemination which involves demonstration studies, and utilization.

Miles, Matthew B. "Educational Innovation: Some Generalizations," Media and Educational Innovation, W. C. Meierhenry (ed.). Lincoln, Nebr.: University of Nebraska, 1964. (ED 003 134)

Miles feels that most efforts have focused on the content rather than the process of change and that the process must be investigated. He discusses the following topics:

- (1) Educational systems, the context for innovation.
- (2) The innovation itself.
- (3) Innovative persons or groups.
- (4) Prior states of relevant systems.
- (5) The planning and execution of change processes.
- (6) The fate of innovations.

Miles, Matthew B. "Learning Processes and Outcomes in Human Relations Training," Personal and Organizational Change through Group Methods, Edgar Schein and Warren G. Bennis (eds.). New York: John Wiley and Sons, Inc., 1965.

Miles explains a research design for the evaluation of organizational change efforts.

Miles, Matthew B. "Planned Change and Organizational Health," Change Processes in the Public Schools, Richard O. Carlson, et al. (eds.). Eugene, Oreg.: The Center for the Advanced Study of Educational Administration, 1965.

Miles advocates that planned change efforts have as their target the improvement of organization health, which he defines as the school system's ability not only to function effectively, but to develop and grow into a more fully-functioning system. Dimensions of organization health, special properties of school systems, and common approaches to organization health are also discussed.

Minear, Leon P. "State Responsibilities, Procedures, and Relationships in Planning," Planning for Effective Utilization of Technology in Education, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968.

The author distinguishes among planning decisions, programming decisions, implementing decisions, and recycling decisions.

Miner, Jerry. "Financial Support of Education," Implications for Education of Prospective Changes in Society, Edgar L. Morphet and Charles O. Ryan (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1967.

Miner feels that the recognition of and effective response to change is more important than the attempt to make detailed predictions about the need for change far in advance. He also emphasizes the importance of legislating federal programs in such a way so as not to require repeated annual authorization by Congress.

Morphet, Edgar L., and David L. Jesser. "The Future in the Present: Planning for Improvements in Education," Cooperative Planning for Education in 1980, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968. (ED 018 008)

The authors list four reasons for planning for the future:

- (1) The fact that changes will occur, with or without planning.
- (2) The ability to project alternative goals and means to attain them.
- (3) The ability to identify maladjustments and deficiencies that cause difficulties and to correct them.
- (4) The availability of those tools which are needed to plan effectively and to recognize some of the heretofore unrecognized pitfalls of planning.

They discuss the dilemma of planning for a world we cannot foresee, but they suggest that the purpose of long-range planning should not be to predict the exact course of events, but to make reasonable assumptions about the future based on the best evidence available. These assumptions should serve as guides for predicting and evaluating the consequences of feasible alternative courses of action. They also discuss the linking of planning and change.

Munroe, David C. "Educational Planning as an Aspect of Social Change in Quebec," Emerging Strategies and Structures for Educational Change. Toronto, Canada: Ontario Institute for Studies in Education, 1966.

Planning involves at least three aspects: clarification of objectives, an inventory of resources and needs, and an acceptance of priorities.

Myers, Donald A. "The Art of Decision-Making," The Principal and the Challenge of Change, Jerrold M. Novotney (ed.). Dayton, Ohio: Institute for the Development of Educational Activities, Inc., 1968.

Myers argues that all instructional decisions should be made by the teachers themselves, since they, more than others, know enough about themselves and learners to make intelligent choices.

Nahrstedt, Gary. "Forming the Links: The Cooperative Process," Partners for Educational Progress, Frank W. Markus (ed.). Kansas, Mo.: Metropolitan School Study Group and Mid-Continent Regional Educational Laboratory, October, 1967. (ED 015 541)

Nine general principles for guiding cooperative endeavors are explained.

Newell, William T. "Aids to Planning and Decision Making: Quantitative Analysis and Systems Analysis," Institute on Planning, Richard B. Engen (ed.). Salem, Oreg.: Oregon State Library, 1965. (ED 017 305)

Newell distinguishes between planning and decision making on the basis of the time dimension. Programmed and non-programmed decisions are also discussed.

Niehoff, Arthur H. "The Process of Innovation," A Casebook of Social Change, Arthur H. Niehoff (ed.). Chicago, Ill.: Aldine Publishing Company, 1966.

The author presents a detailed description and analysis of the innovation process from an anthropological point of view.

Novotney, Jerrold M. "Staff Involvement," The Principal and the Challenge of Change, Jerrold M. Novotney (ed.). Dayton, Ohio: Institute for the Development of Educational Activities, Inc., 1968.

Novotney argues that planned change is achieved through dialogue in an atmosphere of cooperation.

Nyquist, Ewald B. "Emerging Strategies and Structures for Educational Change in the United States," Emerging Strategies and Structures for Educational Change. Toronto, Canada: Ontario Institute for Studies in Education, 1966.

Nyquist depicts a general view of the situation in the United States in which he lists four needs of those who wish to accelerate educational change:

- (1) The need to reduce the delay between the discovery of a good idea and its implementation.
- (2) The need to eliminate duplication of, and unnecessary competition in, research efforts.
- (3) The need to intensify research in the teaching and learning process and its administration.
- (4) The need to bring together related disciplines in coordinated research.

Nyquist, Ewald B. "State Organization and Responsibilities for Education," Emerging Designs for Education, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968.

Planning is viewed as a technical process; as such, it involves the systematic application of a rational methodology to the tasks of identifying and resolving the persistent and compelling problems of educational development.

Ofiesh, Gabriel D. "Innovations in the Air Force," Media and Educational Innovation, W. C. Meierhenry (ed.). Lincoln, Neb.: University of Nebraska, 1964. (ED 003 134)

The author states that we have been proceeding on a false assumption, namely that if we can demonstrate to people that certain successful innovations will work, the people, in turn, will innovate. He shows how to develop an instructional system or model-programmed instruction.

Paines, Herbert S. "Assessing the Educational Needs of a Nation," Educational Planning, Don Adams (ed.). Syracuse, N.Y.: Syracuse University Press, 1964.

Paines discusses five approaches to the assessment of educational needs:

- (1) The social demand.
- (2) The marginal rate of return to education.
- (3) The use of econometric models.
- (4) The manpower requirements.
- (5) The cultural requirements.

Parker, J. Cecil, and Raymond S. McGuire. "The Educational Program: Part Two," Emerging Designs for Education, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968.

The authors suggest that 5% of educational budgets be set aside for research and development.

Pellegrin, Roland J. "The Place of Research in Planned Change," Change Processes in the Public Schools, Richard O. Carlson, et al. Eugene, Oreg.: The Center for the Advanced Study of Educational Administration, 1965.

The author stresses the importance of research-based knowledge.

Phillips, H. M. "Education and Development," Economic and Social Aspects of Educational Planning. Paris, France: UNESCO, 1964.

Development is defined as growth plus change; change in turn is social and cultural as well as economic, and qualitative as well as quantitative. Planning refers to the system which a country adopts for forecasting its needs and for setting up a framework, or alternative frameworks, of national action to meet them.

Phipps, Lloyd J. "Establishing Objectives and Developing Procedures for Developmental, Pilot and Innovative Programs," Seminar on Planning Developmental and Related Programs in Occupational Education, Charles H. Rogers and C. Cayce Scarborough (eds.). Raleigh, N. C.: Center for Occupational Education, North Carolina State University of Raleigh, 1966.

The author emphasizes the importance of distinguishing between developmental projects and demonstration projects. He lists procedures for organizing and conducting pilot programs, the questions and suggestions relating to conduct of pilot programs, and other important considerations.

Pickering, Robert L. "Change and the Elementary and Secondary Education Act," Fostering and Reinforcing Innovative Behavior of Selected School Personnel. Albuquerque, N. Mex.: The Southwestern Cooperative Educational Laboratory, Inc., May, 1967. (ED 013 683)

The author feels that philosophical, strategic, political, and practical considerations must be given due regard if an innovator is to see his idea implemented.

Pierce, Truman M. "Educational Change and the Role of Media," Media and Educational Innovation, W. C. Meierhenry (ed.). Lincoln, Nebr.: University of Nebraska, 1964. (ED 003 134)

Pierce lists factors against change, ten kinds of educational change, and thirteen forces which cause educational change. He discusses that pattern of change which, he feels, can be predicted.

Pond, Millard Z. "Public School Problems Related to Field Research and Demonstrations of New Education Media," Novel Strategies and Tactics for Field Studies of New Educational Media Demonstrations, Sidney C. Eboch (ed.). Columbus, Ohio: Ohio State University, 1965. (ED 003 120)

The author describes the Eugene Project and its problems, and then makes suggestions for further demonstration-research programs.

Prasch, John. "R & I Units and the Solution of Local Educational Problems," Project MODELS: Maximizing Opportunities for Development and Experimentation in Learning in the Schools, Herbert J. Klausmeier, et al. Madison, Wis.: Research and Development Center for Learning and Re-Education, University of Wisconsin, 1966. (ED 010 214)

Research and Instruction units are viewed as an effective mechanism for dealing with local school problems.

Pusic, Eugene. "The Needs of Children in Relation to Planning Structures and Processes," Planning for the Needs of Children in Developing Countries, Herman D. Stein (ed.). United Nations Children's Fund, 1965.

The planning process is seen as involving three main fields: political, technical or functional, and administrative. The planning process calls for a fusion of these three into a unity; this is contrary to the institutional arrangements in existence today.

Rackley, J. R., and Donald M. Carroll, Jr. "Supplementary Statement," Planning and Effecting Needed Changes in Education, Edgar L. Morphet and Charles O. Ryan (eds.). New York: Citation Press, 1967.

The authors divide the components of the state education agency

into the following parts: educational planning, educational assessment, research administration, statistics, and management information.

"Rapporteur's Summary and Conference Conclusions," Planning for the Needs of Children in Developing Countries, Herman D. Stein (ed.). United Nations Children's Fund, 1965.

A distinction is drawn between instrumental targets and goal targets.

Robertson, Thorington B. "The Public's Share in Shaping Educational Policy: A Pilot Study," A Pilot Center for Educational Policy Research, Marvin Adelson, et al. Part II. Santa Monica, Calif.: System Development Corporation, February, 1968. (ED 014 623)

One of the important findings of this study states that those people who took part often had very clear desires with respect to change, but very unclear desires with respect to objectives. Many wanted to see changes implemented, but none had considered in detail the kind of educational system which would result from their taking action.

Rogers, Everett M. "Innovations: Research Design and Field Studies," Novel Strategies and Tactics for Field Studies of New Educational Media Demonstrations, Sidney C. Eboch (ed.). Columbus, Ohio: Ohio State University, 1965. (ED 003 120)

The theme of this article is the necessity of devoting increased research attention to an investigation of the process by which educational innovations are diffused. Rogers reviews the findings of each of the six major diffusion research traditions and lists the reasons for observing caution in applying these findings to education. He views the innovation process as individual, the diffusion process as social. He conceptualizes the innovation process in terms of the following three functions: knowledge, attitude change, and behavioral change. He states that mass media channels are most important in creating knowledge about an innovation, but that personal channels change attitudes. Properties of an innovation, adopter categories, a profile of innovators, and laggards, four approaches to needed research, and value and types of simulation models are also discussed.

Rogers, Everett M. "What Are Innovators Like?" Change Processes in the Public Schools, Richard O. Carlson, et al. Eugene, Oreg.: Center for the Advanced Study of Educational Administration, 1965.

The author defines innovators as the first members of a social system to adopt new ideas. Innovators usually possess the following characteristics:

- (1) They are young.
- (2) They have relatively high social status in terms of amount of education, prestige rankings and income.
- (3) They value impersonal and cosmopolite sources of information.
- (4) They are themselves cosmopolitan.
- (5) They exert opinion leadership.
- (6) They are likely to be viewed as deviants by their peers and by themselves.

Rosove, Perry E. "An Analysis of Possible Future Roles of Educators as derived from a Contextual Map," A Pilot Center for Educational Policy Research, Marvin Adelson, et al. Part II. Santa Monica, Calif.: System Development Corporation, February, 1968. (ED 014 623)
Rosove describes a compilation of future roles, emphasizes the importance of the policy-maker's anticipation of the future, and describes characteristics of the educational system of the future.

Rosove, Perry E. "A Provisional Survey and Evaluation of the Current Forecasting State of the Art for Possible Contributions to Long-Range Educational Policy Making," A Pilot Center for Educational Policy Research, Marvin Adelson, et al. (ed.). Part II. Santa Monica, Calif.: System Development Corporation, February, 1968. (ED 014 623)
The author describes twenty-one methods for conjecturing about the future and for contributing to the attainment of a desired future.

Rosove, Perry E. "The Use of Contextual Mapping to Support Long-Range Educational Policy Making," A Pilot Center for Educational Policy Research, Marvin Adelson, et al. (eds.). Part II. Santa Monica, Calif.: System Development Corporation, February, 1968. (ED 014 623)
A contextual map is defined as a graphic display of the logical and causal dependencies of functionally related phenomena.

Russell, John Dale. "Institutional Research as a Basis for Planning Publicly Controlled Institutions," The Role of Institutional Research in Planning, L. Joseph Lins (ed.). Madison, Wis.: University of Wisconsin, 1963. (ED 016 367)
The institutional research office should not bear the responsibility of directing the long-range planning; rather it should be a facilitating agency.

Sanders, Ole, and Donald A. Myers. "Creating a Productive Dialogue: Research, Discussion and Rationale," Rational Planning in Curriculum and Instruction. Washington, D. C.: Center for the Study of Instruction, National Education Association, 1967.

Although a conceptual model, if carefully constructed, could, and should, generate new knowledge, it actually serves to systematize or order the existing knowledge. The authors also demonstrate the need for a curriculum development model.

Sandgren, Lennart. "The Organization and Implementation of Educational Planning in Sweden," Educational Planning, Cicely Watson (ed.). Toronto, Canada: Ontario Institute for Studies in Education, 1967. (ED 016 303)

The author stresses that to talk of educational planning is to talk of fundamental reform of the educational system. He also discusses ways to obtain a balance between internal and external forces.

Schottland, Charles I. "Some Observations on Administrative Arrangements to Promote the Welfare of Children through National Planning," Planning for the Needs of Children in Developing Countries, Herman D. Stein (ed.). United Nations Children's Fund, 1965.

In his discussion of the inadequacies of existing structures, the author lists five steps involved in planning: gathering of information, dissemination of information, establishing of goals, setting of priorities, and implementation of the plans.

Schramm, Wilbur. "Science and the Public Mind," Studies of Innovation and of Communication to the Public, Wilbur Schramm (ed.). Stanford, Calif.: Institute for Communication Research, Stanford University, 1962.

The author states that a new scientific idea will be accepted much more readily if the people who will have to accept it are brought as much as possible into the decision, quickly and continuously informed about it, and given the opportunity to discuss it freely and to make any changes they think necessary.

Sieber, Sam D. "Institutional Settings," The Role of Educational Research in Educational Change, Egon G. Guba (ed.). Bloomington, Ind.: The National Institute for the Study of Educational Change, 1967. (ED 012 505)

Sieber discusses university research units, regional educational laboratories, research organizations in state departments of education, research units in local school systems, and independent research organizations.

Silberman, Harry F. "A Brief Comment on Educational Policy," A Pilot Center for Educational Policy Research, Marvin Adelson, et al. (eds.). Part II. Santa Monica, Calif.: System Development Corporation, February, 1968. (ED 014 623)

The writer feels that, in addition to providing conservative goals designed to facilitate adjustment to society, the public schools should also serve as a vehicle for effecting changes in that society.

- Simon, Herbert A. "The Decision-Maker as Innovator," Concepts and Issues in Administrative Behavior, Sidney Mailick and Edward H. Van Ness (eds.). Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1962.
Simon argues that the main responsibility of the chief executive lies in the modification of the organization to meet changing demands and opportunities in its environment.
- Sinclair, Robert L. "Leadership Concerns," The Principal and the Challenge of Change, Jerrold M. Novotney (ed.). Dayton, Ohio: Institute for the Development of Educational Activities, Inc., 1968.
The author reviews the leadership styles necessary to promote creativity and innovation on the part of teachers.
- Stanley, Julian C. "Quasi-Experimentation in Educational Settings," Novel Strategies and Tactics for Field Studies of New Educational Media Demonstrations, Sidney C. Eboch (ed.). Columbus, Ohio: Ohio State University, 1965. (ED 003 120)
The author grapples with the question of basic and sequential research versus the implementation of changes in classroom procedure.
- Stewart, Lawrence H. "Factors Related to Academic Achievement," Fostering and Reinforcing Innovative Behavior of Selected School Personnel. Albuquerque, N. Mex.: The Southwestern Cooperative Educational Laboratory, Inc., May, 1967. (ED 013 683)
The author discusses "n-ach" (the need for achievement).
- Taylor, Donald W. "Decision-Making and Problem Solving," Handbook of Organizations, James G. March (ed.). Chicago, Ill.: Rand McNally and Company, 1965.
Decision-making is that thinking which results in the choice among alternative courses of action; problem solving is that thinking which results in the solution of problems.
- Tirrell, John E. "A Case Study of a Totally Independent-Study Community College," Administration and Innovation, John Weber (ed.). Ann Arbor, Mich.: The Midwest Community College Leadership Program, 1966. (ED 014 299)
Management and method in the use of the systems concept are described.
- Tope, Donald E. "Summary of Seminar on Change Processes in the Public Schools," Change Processes in the Public Schools, Richard O. Carlson, et al. (eds.). Eugene, Oreg.: The Center for the Advanced Study of Educational Administration, 1965.
Tope feels that part of the challenge for the school administrator involves the provision of some means for developing an adoption process when changes are being considered.

Travers, R. M. W. "A Study of the Relationship of Psychological Research to Educational Practice," Training Research and Education, Robert Glasser (ed.). Pittsburgh, Pa.: University of Pittsburgh Press, 1962.

The author cites examples showing how little and how slowly psychological and educational research have influenced educational practice.

Tumin, Melvin. "Procedures for Effecting Educational Change," Conference on Curriculum and Instruction Development in Art Education, Alice A. D. Baungartner (ed.). Washington, D. C.: National Art Education Association, 1967.

The author recommends that research into quality education and into the place of art in quality education be carried out. He demonstrates the need for a political strategy to convince people of the worth of art education.

Tye, Kenneth A. "Creating Disequilibrium," The Principal and the Challenge of Change, Jerrold M. Novotney (ed.). Dayton, Ohio: Institute for the Development of Educational Activities, Inc., 1968.

Tye discusses various internal and external strategies for the creation of disequilibrium.

UNICEF Secretariat Paper. "Questions for Discussion about the Content, Method, and Organization of Planning for Children and Youth," Planning for the Needs of Children in Developing Countries, Herman D. Stein (ed.). United Nations Children's Fund, 1965.

Four methods of planning are discussed:

- (1) The assessment of the situation of children and youth used as a starting point.
- (2) The setting of goals for the development of children and youth.
- (3) The fitting of goals into appropriate sectors.
- (4) The adaptation of methods to conform to different circumstances.

Vaizey, John. "Financial and Policy Implications of Educational Plans," Lectures and Methodological Essays on Educational Planning. Paris, France: Directorate for Scientific Affairs, Organization for Economic Co-Operation and Development, 1966.

The author suggests that the major function of long-term planning and forecasting is the predetermination and narrowing of the area of choice of politicians, thus making it as quantitative as possible.

Valentine, C. Glenn. "New Developments in Learning at Bell Telephone," Educational Planning, Cicely Watson (ed.). Toronto, Canada: Ontario Institute for Studies in Education, 1967. (ED 014 299)
Valentine describes the programmed instruction system developed at Bell Telephone Company.

Watson, Cicely. "Commentary," Emerging Strategies and Structures for Educational Change. Toronto, Canada: Ontario Institute for Studies in Education, 1966.

The purpose of planning a system of public education is to improve its articulation and to rationalize it as a system, but beyond this to relate it efficiently to the predicted social and economic needs of a society and to enable it to change so that it may properly carry out its functions and fulfill society's expectations.

Watson, Cicely. "The Training and Use of Educational Planners," Educational Planning, Cicely Watson (ed.). Toronto, Canada: Ontario Institute for Studies in Education, 1967. (ED 016 303)
The author discusses the training program in Ontario.

Watson, Goodwin. "Experimental Colleges in America," Dimensions of Change in Higher Education, Will Hamlin and Lawrence Porter (eds.). Yellow Springs, Ohio: Union for Research and Experimentation in Higher Education, 1967. (ED 014 304)

Watson discusses the following topics:

- (1) Specific reforms versus new holistic designs.
- (2) The prophets and the practitioners.
- (3) The precipitating increment.
- (4) Problems unforeseen and underestimated.

Watson, Goodwin. "Toward a Conceptual Architecture of a Self-Renewing School System," Change in School Systems, Goodwin Watson (ed.). Washington, D. C.: Cooperative Project for Educational Development, National Training Laboratories, National Education Association, 1967.
The author presents a design for continuous self-renewal and the structural implications of such a system.

Wilhelms, Fred T. "The Planning of Planning," Planning for Effective Utilization of Technology in Education, Edgar L. Morphet and David L. Jesser (eds.). Denver, Colo.: Designing Education for the Future: An Eight-State Project, 1968.
At the present time, a systematic design for the planning of planning is urgently needed.

Wilkening, E. A. "The Communication of Ideas on Innovation in Agriculture," Studies of Innovation and of Communication to the Public, Wilbur Schramm (ed.). Stanford, Calif.: Institute for Communication Research, Stanford University, 1962.

Wilkening discusses the influence of various forms of communication during the different phases of the adoption process.

Williams, Fred D. "Panel Presentation," Five Regional Conferences on the Disadvantaged. Frankfort, Ky.: Kentucky State Department of Education, 1966. (ED 015 822)

We can upgrade the total way of life of disadvantaged individuals within the context of our present educational system if we are provided with financial resources and the teaching profession is willing to break step with tradition.

Wilson, Elizabeth C. "A Model for Action," Rational Planning in Curriculum and Instruction. Washington, D. C.: Center for the Study of Instruction, National Education Association, 1967.

The author describes the Center for the Study of Instruction Project. The major goal of this model for action is the development of settings in which the rational planning of curriculum and instruction can be studied in operation and through which a nucleus of catalytic agents may be identified and nurtured. This presumes the creation of a new kind of educational consortium.

Wilson, Kenneth M. "The Compleat Researcher," Proceedings, Conference on Research-Based Planning and Development. Regional Educational Laboratory for the Carolinas and Virginia, 1968.

More attention has been given to the analysis of problems of resource allocation than to systematic analysis of problems of educational assessment and evaluation. Problems of survival must be dealt with first.

Wurtele, Zivia S. "Mathematical Models for Educational Planning," A Pilot Center for Educational Policy Research, Marvin Adelson, et al. (eds.). Part II. Santa Monica, Calif.: System Development Corporation, February, 1968.

The author presents a survey of mathematical models and discusses the process of constructing them.

PAPERS AND SPEECHES

Abbott, Max G. "The School as a Social System: Indicators for Change." Paper presented at the Symposium on Operations Analysis of Education, sponsored by the National Center for Educational Statistics, Washington, D.C., November, 1967.

The author discusses three phases of innovation: (1) awareness, (2) search, and (3) implementation. He offers various propositions and hypotheses at each one.

Aiken, Michael, and Jerald Hage. "Organizational Structure and Interorganizational Dynamics." Revised version of a paper presented at the Annual Meeting of the American Sociological Association, San Francisco, August, 1967. (ED 015 543)

The purpose of this paper is the exploration of some of the causes and consequences of interorganizational analysis.

Argyris, Chris. "Creating and Evaluating Organizational Change." Paper presented at Foundation for Research on Human Behavior Conference at the Onchote Conference Center, Tuxedo, New York, July, 1965.

The author describes his organizational change effort with the boards of two research organizations who used sensitivity training.

Bagley, Clarence H. "Institutional Research and Information Control." Paper presented at a Meeting of the Association for Educational Data Systems, Detroit, 1967. (ED 014 794)

The author discusses five general procedures in information control:

- (1) The designation of a central office with the responsibility for answering requests for data information.
- (2) A comprehensive survey of the college with regard to the information produced; the reasons for its production there; the origin of data and reports and their destinations; and the degree of use and cost of the gathering, tabulation, and production of data.
- (3) The adoption of the systems approach.
- (4) A definition of terms and standards to be used in the reporting of data.
- (5) The institution of a data bank.

Baird, Karen. "A Pilot Project on Dissemination of Information to Higher Education Personnel." Detroit, Mich.: Wayne State University, 1965. (ED 011 075)

The use of an electronic data processing program called "Selective Dissemination of Information" (SDI) is studied as a technique for searching the literature of higher educational administration and bringing to the attention of university administrators that select portion which is of direct relevance to their professional interests.

Baker, Newton H. "Planning for Education in a Rural State." The Montpelier Board of School Commissioners, March, 1968. (ED 018 325)

This paper describes the response received by a project designed to discover and disseminate innovations in a rural state.

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Ball, Jay Tracy. "A Study of Organizational Adaptation to Environmental Pressures: The Demand for Equal Educational Opportunity." Unpublished doctoral dissertation, University of California, Berkeley, 1966.

Ball attempts to demonstrate that the slow process of organizational adaptation to environmental pressure is characterized by incremental improvements in many areas in an attempt to arrive at satisfactory solutions. The findings of the study indicate that most organizations do not have a planning structure to formalize the adaptive process. Instead, they respond to periodic environmental pressures by the creation of a planning structure. The following situations aid this development:

- (1) The development of a personnel core qualified to organize and plan for adaptation.
- (2) Conflict within the system which enhances the propensity for creativity.
- (3) A coalition and bargaining whereby plans, programs and individuals are brought into the decision-making process.

Barhydt, Gordon C. "An Operating Test of a Pilot Educational Media Research Information Center." Cleveland: Western Reserve University, September, 1965. (ED 003 777)

Research results, techniques and procedures related to the development of an educational media research information center are reported.

Becker, James W. "Run Computer Run: A Critique." Paper presented at the Conference on Information Technology and Secondary Education, Harvard University, May, 1968.

According to Becker, the most effective changes in education are those which are well planned, implemented and designed to exist in a continual state of change; this precludes the institutionalization of a program as such.

Beggs, David W., et al. "A Study of the Position of State Departments of Public Instruction, Accrediting Agencies and Selected National Professional Organizations Concerning Experimentation and Innovation in Public Secondary Schools." Bloomington, Ind.: Indiana University, September, 1967. (ED 017 968)

This study indicates that these agencies and organizations have not taken the positive position necessary to encourage educational innovation in the schools.

Bhola, Harbans Singh. "The Configurational Theory of Innovation Diffusion." Paper prepared for the Conference on Strategies for Educational Change, Washington, D.C., November, 1965. (ED 011 147)

Bhola reviews various change models. He defines the diffusion of an innovation as a function of the configurational relationships between the following factors: the initiator from a class of such initiators and the target from a class of such targets; the extent and nature of linkage between and within configurations; the environment in which the configurations are located; and the resources of both the initiator and target configurations.

Booth, Alan. "Factors Which Influence Participation in Adult Education Conferences and Programs by Members of Professional Associations."

Lincoln, Nebr.: University of Nebraska, August, 1966. (ED 010 411)

This study, which utilizes the concept of diffusion of innovations as its framework, attempts to explore the ways in which professional educational association members learn about programs designed to increase their competence and to discover the influence of these methods upon their decision to participate in these programs.

Boyan, Norman J. "Problems and Issues of Knowledge Production and Utilization in Educational Administration." Paper presented at the University Council for Educational Administration Career Development Seminar, Portland, Oreg, October, 1967. (ED 016 278) Also available in Knowledge Production and Utilization in Educational Administration, Terry L. Eidell and Joanne M. Kitchel (eds.). Portland, Oreg.: University Council for Educational Administration and Center for the Advanced Study of Educational Administration, University of Oregon, 1968.

The products of educational inventiveness have three elements in common: they appear in underdeveloped states; they appear in forms which are not fully understood by or acceptable to potential users; and they seldom include specific provisions for preparing or training the potential user to use the product wisely. Educational development is viewed as a necessary, if not sufficient condition for improving the relationship between the production and utilization of new knowledge. The author makes various recommendations for inquiry and development in educational administration.

Brickell, Henry M. "The Dissemination of Educational Practice." Paper presented at the Conference on Research in Music Education, Ohio State University, March, 1967.

Research-based knowledge can be disseminated in at least three ways: transmitted, translated, and transformed. The author discusses fourteen conditions for utilizing and implementing research-based knowledge. This paper emphasizes the point that reports of this research cannot simply be mailed to practitioners. Research results must first be transformed into usable practice through the process of development. Then, the dissemination of these new forms of practice within elementary and secondary school systems is a massive job -- expensive, complex, and long.

Bright, R. Louis, and Hendrik D. Gideonse. "Educational Research and Its Relation to Policy." Paper prepared for the Meeting of the Committee for Scientific and Technical Personnel, Organization for Economic Cooperation and Development, October, 1967. (ED 018 866)

Education research functions are defined and discussed. The authors also explain the emergent strategy of the United States for research and the failures of past strategy. In the appendix, an output-oriented model of research and development is explained.

Broudy, Harry S. "Criteria for the Theoretical Adequacy for Conceptual Framework of Planned Educational Change." Paper prepared for the Conference on Strategies for Educational Change, Washington, D. C., November, 1965, (ED 010 914)

Broudy discusses the nature of theory and problems in social science and concludes by presenting criteria for theoretical adequacy.

Bruce, R. L. "Supply and Demand Activated Extension System," Ithaca, N. Y.: Cornell University, 1964.

Extension is viewed as a system or that part of a system which transmits and applies research-discovered information. A supply-activated system features a one-way flow of information, progressing from research through development to demonstration. A demand-activated system is essentially an information retrieval device.

Brumbaugh, Robert B. "Reference Group Orientation and Teacher-Attitude toward School District Reorganization." Paper presented to the Annual Meeting of the American Educational Research Association, Chicago, Illinois, February, 1966. (ED 010 225)

The findings of this study indicate that factors other than local or cosmopolitan orientation have influenced teacher attitude toward school district reorganization. It was discovered that those teachers opposed to reorganization actually knew less about the factual details of the issue than those who favored it.

Burchinal, Lee G. "Articulation of Resources for Research Utilization." (n. n.), (n. p.), 1967. (ED 013 971)

The author describes the seven elements of a multi-level of resources which may provide the basis for structuring programs to foster widespread adoption of new ideas and practices. He suggests five lines of needed development to promote the widespread use of promising programs before they become obsolete.

Bushnell, David S. "An Education System for the 70's." Speech delivered at the Aerospace Education Foundation Conference, Washington, D. C., September, 1967. (ED 017 738)

The author describes a plan to implement an organic curriculum. To undertake this systematic approach to curriculum design, two levels of strategy have been established. The first describes the pattern for communicating the program, not only to the professional groups in education (which are many), but also to parents and lay leadership at the local school district level. The second level of strategy is the statement of the program out-put specifications in terms of behavioral objectives.

Carlisle, D. H. "Organizational Arrangements and Personnel Training Programs for Effective Use of Research and Development Information in Decision Making Processes of School Systems: A Paper on the Present State of Affairs and Suggested Options for Future Action." Berkeley, Calif.: Far West Laboratory for Educational Research and Development, December, 1967.

After describing various existing programs, the author explains the needs analysis/solution implementation continuum. He describes five options for future action:

- (1) The use of workshops to identify any additional strategies not revealed in the literature review which are employed by districts for increasing the utilization of R & D information without resorting to new organizational arrangements.
- (2) The development of a series of handbooks to aid local district personnel in areas of needs analysis, problem formulation, information-search strategies, and criteria for evaluating and using R & D information.
- (3) The development and dissemination of specialized training programs for those local district personnel who are information or evaluation specialists.
- (4) The modification, development and dissemination of the R & I unit as an arrangement for the field testing and demonstration of R & D findings prior to decision making.
- (5) The performance of a sustained library search and feasibility study on promising non-operational arrangements conceived by other individuals and organizations.

Carlson, Richard O. "Strategies for Educational Change: Some Needed Research on the Diffusion of Innovations." Paper presented at the Conference on Strategies for Educational Change, Washington, D. C., November, 1965.

The author suggests the study of such dependent variables as characteristics of adopting units, position of superintendents in the social structure, nature and extent of communication channels, and processes and bases of decision making.

Carter, Launor F. "Knowledge Production and Utilization in Contemporary Organizations." Paper presented at the University Council for Educational Administration Career Development Seminar, Portland, Oregon, October, 1967. (ED 017 048) Also available in Knowledge Production and Utilization in Educational Administration, Terry L. Eidell and Joanne M. Kitchel (eds.). Portland, Oreg.: University Council for Educational Administration, and the Center for the Advanced Study of Educational Administration, University of Oregon, 1968.

Commenting on Project Hindsight, Carter concludes that an orderly process from research to development to use is largely a myth, and that there is, in fact, a great deal of crossing back and forth in terms of the development cycle involved, in terms of

findings, and in terms of people involved. He emphasizes seven points in this process:

- (1) The necessity of seeking the solution within the context of the problems.
- (2) The realization that the solutions to contemporary social problems will be complex and many-faceted.
- (3) The existence of certain critical conditions which are essential for the successful attack on any major problems.
- (4) The realization that the concept of assessment is fundamental to solving significant problems.
- (5) The necessity for the development of a new profession of social engineering or educational engineering.
- (6) The admission that simple solutions and instant experts are counter-productive.
- (7) The realization that a special problem exists because of the nature of the "gatekeeper" in contemporary problem areas.

Chapman, A. L. "Planning for Rural Health Services." Speech presented at the National Outlook Conference on Rural Youth, Washington, D. C.: October, 1967. (ED 014 358)

In emphasizing the importance of planning, the author indicates what needs to be done, not how planning is to be accomplished.

Chase, Francis S. "The Educational Laboratories: How Do They Fit into the Future of American Education?" Paper prepared for the New Orleans Meeting of the Laboratory Directors, January, 1967.

Chase comments on the reasons for the lack of planning underlying the programs of the laboratories.

Chesler, Mark Arnold. "Social Structure and Innovation in Elementary Schools." Unpublished doctoral dissertation, University of Michigan, Ann Arbor, 1966. (ED 014 817)

This study revolves around the following questions: What conditions encourage meaningful and effective teaching innovations? What is the effect of organizational context, varying peer patterns and principal-staff relations, in schools? The findings support only minimally the expectation that teachers operating in a supportive, yet non-coercive, peer atmosphere are likely to be more innovative than non-supported colleagues.

Chesler, Mark, et al. "The Teacher as Innovator, Seeker and Sharer of New Practices." Ann Arbor, Mich.: Institute for Social Research, University of Michigan, 1963.

This study presents two major findings:

- (1) The objective structure of the school seems to affect adoption rather than innovation. In those schools where the communication structure was more hierarchical, teachers adopted innovation more often than in schools with a diffuse structure.
- (2) In those schools where the communication structure was more spread or diffuse, and where almost everyone was linked

to someone else, teachers innovated and shared more often than in schools with a hierarchical or non-diffuse structure.

Clark, David L., and Egon G. Guba. "Effecting Change in Institutions of Higher Education." Paper presented at the University Council for Educational Administration International Intervisitation Program, October, 1966.

The authors focus on the development and diffusion functions necessary to the program of planned change and attempt to apply these functions to the operation of institutions of higher learning.

Cook, Desmond L. "A New Approach to the Planning and Management of Educational Research." Paper presented at the Annual College of Education Faculty Research Conference, Lake Hope, Ohio, October, 1964.

The management process is broken down into six substeps: establishing project objectives, developing a plan, establishing a schedule, evaluating progress, decision making with regard to problem areas identified, and recycling. Research management refers to a comprehensive analysis of the topics to be studied, relating these to present situations and establishing priority for research projects. The management of research refers to the efficient administration of specific projects aimed at reaching the goals set by research management. Cook lists eleven questions to be asked when planning research projects.

Creshkoff, Lawrence. "Television and the Continuing Education of Teachers: A Feasibility Study of the Potential of Network Television for Dissemination of Educational Research Information." New York: Teachers College, Columbia University, August, 1967. (ED 015 667)

This paper reports a three-phase study which seeks to bridge the gap between the producer of new educational ideas and the practitioner or teacher, by effective use of network television. The study recommends the development of a weekly, flexible-format television series to discuss educational innovations useful to all teachers at all grade levels and in all subject areas.

Culbertson, Jack A. "Organizational Strategies for Planned Change in Education." Paper prepared for the Conference on Strategies for Educational Change, Washington, D. C., November, 1965. (ED 010 915)

The designing of strategies, essentially a developmental activity, involves the use of existing concepts to define a set of activities related to an explicit goal or goals in the one hand, and the projection of ways to cope with predicted conflict which will arise when the set of actions is implemented on the other. The author identifies three classes of constraints which bind our efforts to achieve planned change: our limited knowledge of change, personnel and other resources necessary for change, and cultural factors as, for example, traditional views of the role of local, state, and federal government in facilitating planned change.

The author then discusses four strategies for dealing with the constraints of educational change: a national education academy, an institute for the study of educational innovation, a plan to facilitate state and national policy development, and the application of operations research to local school district problems.

Culbertson, Jack A. "The Way It Could Be." Paper presented to the EDPA Directors of Programs in Educational Administration, Miami, Florida, March, 1969.

Culbertson states that the private sector has demonstrated a capacity to control its directions and policies through long-range planning; it has also been noted for its risk-taking abilities. On the other hand, educational organizations have not yet developed a planning capability and are much less inclined toward innovation.

Cushman, M. L. "The Status of Education and Training of Rural Youth: The Impact of Socioeconomic Change." Speech delivered at the National Outlook Conference on Rural Youth, Washington, D.C., October, 1967. (ED 014 363)

The author states that rural schools have greater educational responsibilities than urban schools. He suggests the following: redistrict schools, construct new school buildings, prepare better teachers and administrators for rural youth, conduct more research, revise state aid formulas, create intermediate districts, expand vocational education, and utilize local resources in teaching methodologies. He emphasizes that we must redefine our priorities and do a better job with the techniques and tools that are available.

Dreyfus, Lee S. "Closing the Gap -- Research and Practice." Paper read at the Region III Seminar, National Association of Broadcasters, Oxford, Ohio, March, 1965. (ED 011 949)

Dreyfus discusses the reasons for the gap in instructional television and proposes the following solutions:

- (1) That presently available information be gathered together as a personal resource for those persons involved.
- (2) That a complete bibliography of research be compiled.
- (3) That more research of the sort most helpful to the producer and the teacher be carried out.

Dubos, R. "Growth, Learning and Purpose." Paper delivered at 75th Anniversary Distinguished Lecture Series, Teachers College, Columbia University, March, 1963.

The author points out that periods of rapid-social change, such as the early Renaissance and the Enlightenment, also appear to have been periods of educational change.

Eichholz, Gerhard C. "Development of a Rejection Classification for Newer Educational Media." Unpublished doctoral dissertation, Ohio

State University, Columbus, 1961.

The author presents a model of change which looks at rejection rather than acceptance of innovation. He identifies different forms of rejection as ignorance, suspended judgement, situational, personal and experimental, and analyzes the possible causes of such rejection. The state of the subject and his anticipated responses to each form are indicated.

Farquhar, Robin H. "Incorporating Humanities Content into Preparatory Programs for Educational Administrators: Rationales and Structures." University Council for Educational Administration, January, 1967. (ED 014 818)

Farquhar identifies and discusses four major foci which account for the majority of rationales:

- (1) A focus upon the general liberalization of administration.
- (2) A focus upon the values and purpose-defining skills in administration.
- (3) A focus upon creativity and analytical skills in administration.
- (4) A focus upon the research skills in administration.

Three new inter-institutional strategies to this problem are discussed:

- (1) The approaches which entail prolonged immersion in content with the humanities.
- (2) Approaches which involve short-term exposure to the humanities.
- (3) An amorphous group of approaches which falls somewhere between the first two categories in terms of duration of the program and the depth of involvement.

Feinberg, Harriet. "Perspectives on the R & D Center." Report to the Policy Board of the Center for Research and Development on Educational Differences, February, 1966. (ED 011 322)

The main source of data for this report is a series of interviews. The author discusses various problems encountered at the Harvard Center under the following headings:

- (1) Harvard tends to be highly research-oriented, rather than service-oriented.
- (2) Although the various programs of the Center are well-run individually, those who were interviewed felt that more communication is needed among the various programs.
- (3) The activity of the Center is examined in the light of two questions: "What do we really know?" and "What are our goals?"
- (4) A historical perspective has been included for those who might be interested in tracing signs of present Center problems in the past deliberations.

Foskett, John M. "Sociology and Educational Administration: A Discussion." Paper presented at the University of Oregon Conference on New Directions in Research in Educational Administration, March, 1965. (ED 010 219)

This paper discusses some ideas concerning the relation of sociology to educational administration, with particular emphasis on the research activities of sociologists and the way in which such research might relate to the problems of school administration. The author makes the point that folk wisdom must be replaced with tested knowledge.

Gelatt, H. B. "Information and Decision Theories Applied to College Choice and Planning." Paper presented at the College Entrance Examination Board Invitational Conference on the Preparation of School Counselors, February, 1966. (ED 015 486)

According to Gelatt, a good decision requires adequate and relevant information and an effective strategy for organizing, analyzing and synthesizing the information in order to arrive at a choice. The information requirement involves knowledge of the following:

- (1) Possible alternative actions.
- (2) Possible outcomes.
- (3) The probability of individual outcomes.
- (4) The desirability of outcomes with respect to preference and values.

Gephart, William J. "Criteria for Methodological Adequacy for Research on Educational Change." Paper prepared for the Conference on Strategies for Educational Change, Washington, D.C., November, 1965. (ED 011 146)

The author discusses the following topics:

- (1) A plausible logic framework for educational research.
- (2) General criteria for research evaluation.
- (3) Elements of the study of the educational change process.
- (4) Methods and techniques for studying the change process components.
- (5) Criteria for adequacy of evaluating research techniques in the study of educational change.

Goldhammer, Keith. "Factors Related to Citizen, Administrator and Teacher Participation in Educational Decision-Making." Paper presented to a Symposium of the American Educational Research Association, February, 1965. (ED 010 217)

Based on a study of three communities, the author states that educational decision-making is a political process involving the interactions, values, aspirations, and interests of various groups.

Goldhammer, Keith. "Issues and Strategies in the Public Acceptance of Educational Change." Paper presented to the Conference on Educational Issues in a Changing World, Maui, Hawaii, November, 1965. (ED 010 224)

The following factors affect the public acceptance of change:

- (1) The public's image of the advocate of change.
- (2) The public's image of the organization and the ends it serves.
- (3) The public's view of the proposed changes.

- (4) The congruence of the proposed change with generally accepted values and recognized social needs.
- (5) Situational factors which facilitate or impede the acceptance of change.

Goodson, Max R., and Richard Hammes. "A Team Designed for School System Changing." Madison, Wis.: Wisconsin Research and Development Center for Cognitive Learning, University of Wisconsin, February, 1968.

The authors describe in two dimensions a change model applied to three Wisconsin school systems: that of planning for and managing specific changes which systems might need or desire; and that of assisting in facilitating and perpetuating a climate in which change and innovation might flourish as a natural feature of system operations. A change agent team, consisting of people who had other full-time responsibilities, was formed in each of the three systems.

Gould, Samuel B. "Leadership in a Time of Educational Change." Address presented at the Annual Conference of the Association for Higher Education, Chicago, March, 1967. (ED 014 800)

The author discusses the following topics:

- (1) The change in the nature of our educational institutions.
- (2) The emergence of a new type of educational leader as a result of these institutional changes.
- (3) The change in attitude toward leadership on present-day campuses.
- (4) The newly recognized elements of university life which appear imminent.

Green, Jerald E. "Strategies for Educational Change in Pupil Personnel Services." Kent, Ohio: Kent State University, 1966.

The author feels that educational change is difficult for the following reasons:

- (1) There is no economic incentive to innovate.
- (2) There are very few change agents.
- (3) Community forces outside schools discourage change.
- (4) Educational research is difficult and underdeveloped, with no clear-cut way of getting research findings from the laboratory into the classroom.

Greiner, Larry. "Research on the Managerial Grid Approach to Organizational Development." Paper presented at the Foundation for Research on Human Behavior Conference at the Onchiota Conference Center, Tuxedo, New York, July, 1965.

Greiner discusses a research design, i. e., evaluation by non-participants, to be employed in evaluating organization change-efforts.

Guba, Egon G. "A Model of Change for Instructional Development." Paper prepared for the Educational Media Conference, Indiana University, June, 1968.

Guba defines and discusses three kinds of change: evolutionary; homeostatic, or reactive; and neomobilistic, or planned. He discusses seven factors affecting the emergence of meaningful change. He judges the model he proposes on the criteria of relevance and impact, and he describes it in terms of a utilization arm, an information arm, a research arm, a development arm, and a diffusion arm.

Guba, Egon G. "Crucial Issues in Relating Educational Research to Educational Improvement." Paper presented at the American Educational Research Association Symposium on Educational Improvement and the Role of Educational Research, New York, February, 1967.

Guba raises five issues for consideration:

- (1) To what extent should the meaning of the term "educational researcher" be expanded to include the many new role types which are currently emerging?
- (2) What should be the relationship between the university and emergent agencies such as R & D Centers, the regional laboratories, Title III projects, and the like?
- (3) What is the relationship of research to the processes of educational improvement?
- (4) Can research be related to educational improvement without being subverted, particularly by the hucksterism which might easily characterize dissemination efforts?
- (5) What can educational researchers do to help train the vast coterie of personnel which will be required to fill the emergent research-related roles?

Guba, Egon G. "Development, Diffusion and Evaluation." Paper prepared for the University Council for Educational Administration Career Development Seminar, Portland, Oregon, October, 1967. (ED 015 534) Also available in Knowledge Production and Utilization in Educational Administration, Terry L. Eidell and Joanne M. Kitchel (eds.). Portland, Oreg.: University Council for Educational Administration and Center for the Advanced Study of Educational Administration, University of Oregon, 1968.

Guba lists two assumptions which underlie his presentation:

- (1) There is a tremendous gap between knowledge production and knowledge utilization that cannot be spanned by either the producer or the utilizer himself, or even by these two active in concert, at least in the typical situation.
- (2) Knowledge is at best only one of a number of input factors in any practical situation.

He describes the four phases of his model: research, development, diffusion, and adoption. He states that experience from industry indicates that from five to eleven times as much investment is required to develop an application from a research finding than is necessary to produce the research finding in the first place. He depicts the functions of diffusion as being to

tell, to show, to help, to involve, to train, and to intervene. To evolve diffusion strategies implies some consideration of the following assumptions:

- (1) Assumptions concerning the nature of the practitioner who will be exposed to the strategy.
- (2) Assumptions concerning the end state in which one wishes to leave the practitioner.
- (3) Assumptions about the nature of the agency or mechanism carrying out the diffusion activity.
- (4) Assumptions concerning the substance of the invention.

Four kinds of emergent evaluation are seen as a tool to aid decision-making: context, impact, process, and product.

Guba, Egon G. "Methodological Strategies for Educational Change." Paper presented to the Conference on Strategies for Educational Change, Washington, D. C., November, 1965. (ED 011 404)

Guba distinguishes between two general strategies: experimental, manipulative and interventionist; and aexperimental, observational, and laissez faire (field study). The intent of the former is one of inquiring into possibilities, while the intent of the latter is to inquire into actualities. He also discusses the action and content aspects of an objective which is set for an inquiry.

Guba, Egon G. "The Change Continuum and Its Relation to the Illinois Plan for Program Development for Gifted Children." Paper delivered to a Conference on Change, Urbana, Illinois, March, 1966. (ED 011 403)
Guba describes his taxonomy of research, development, diffusion and adoption and then discusses the Illinois Plan in terms of this taxonomy. He feels that the plan, when assessed in terms of the criteria proposed in his taxonomy, leaves much to be desired.

Guba, Egon G. "The Development of Novel and Improved Strategies for Educational Diffusion." Proposal submitted to the U. S. Commissioner of Education through authorization of the Bureau of Research, April, 1967.

The term "strategy" is defined as an overall design for gaining acceptance, while the term "technique" is used to designate particular means or methods by which strategies may be achieved.

Guba, Egon G. "The Impending Research Explosion and Educational Practice." Paper presented at the Summer Lecture Series, College of Education, Kent State University, July, 1965. (ED 011 405)

Guba describes his taxonomy of research, development, diffusion, and adoption, and lists the criteria at each stage. He defines those evaluations which are undertaken in relation to development, diffusion, or adoption activities as field studies.

Hammond, Robert L. "Evaluation at the Local Level." Tucson, Ariz.: Project EPIC, 1967.

The procedures, structure, and model described in this paper are

proposed as a systematic way to assess the effectiveness of an innovation. The model has three dimensions:

- (1) Instruction which includes organization, content, methodology, facilities and cost.
- (2) Institutional dimension which includes the student, the teacher, administrator and educational specialist, the family, and the community.
- (3) Behavioral dimension which includes cognitive, affective and psychomotive behavior.

Havelock, Ronald G. "Dissemination and Translation Roles." Paper prepared for the Workshop on the Management of Innovation, St. John's College, Cambridge, England, June, 1969.

This paper contains an updated version of the author's "Dissemination and Translation Roles in Education and Other Fields: A Comparative Analysis."

Havelock, Ronald G. "Dissemination and Translation Roles in Education and Other Fields: A Comparative Analysis." Paper presented at the University Council for Educational Administration Career Development Seminar, Portland, Oregon, October, 1967. Also available in Knowledge Production and Utilization in Educational Administration, Terry L. Eidell and Joanne M. Kitchel (eds.). Portland, Oreg.: University Council for Educational Administration and Center for the Advanced Study of Educational Administration, University of Oregon, 1968.

Havelock presents a typology of eight linking roles: conveyor, consultant, leader, innovator, defender, knowledge builder, practitioner, and user. He lists three institutional questions of highest relevance to the topic of linking agent:

- (1) What sort of institutional barriers, both in the resource system and in the client system, most frequently affect knowledge dissemination and utilization?
- (2) What kinds of institutions are most effective for fostering (supporting, controlling) linking roles?
- (3) What kinds of institutions serve as linkers?

Four institutional bases for the linker are university, government, commercial and practice. The advantages of permanent linking institutions for the individual linker are security, identity, and coordination, while its disadvantages are isolation, self-satisfaction, and rigidity. Linking institutions can overcome these disadvantages and maintain their validity through sub-organization into temporary systems. Havelock emphasizes the need for a drastic division of labor and a clear definition of sub-function which can only be accomplished through institutionalization. He also highlights the need for the linker to focus his activities in projects, time-limited and objective-limited sequences. He discusses four things that have to be done to build a functioning system of knowledge linkers:

- (1) Build an institution which includes and supports the required roles.
- (2) Recruit candidates to serve in these roles.
- (3) Train these recruits to fill these roles.
- (4) Supply them with the equipment necessary to help them do a good job.

Havelock, Ronald G. "Dissemination and Utilization: The State of the Art: 1969." Paper prepared for the American Educational Research Association Symposium, Los Angeles, February, 1969.

The major theoretical and empirical studies of knowledge dissemination and utilization are grouped into the following three categories: research, development and diffusion perspective; social interaction perspective, and problem-solver perspective.

Havelock, Ronald G. "Linking Research to Practice: What Role for the Linking Agent?" Paper presented at the American Educational Research Association Symposium on Training Linking Agents, February, 1967.

The endemic problems in linking roles are summarized under five headings: marginality, conflicting service goals (serving two masters); remoteness from the point of need (spatially and temporally), expertise overload, and channel inefficiency. Havelock feels that a linkage consultant is necessary.

Havelock, Ronald G., and Kenneth D. Benne. "An Exploratory Study of Knowledge Utilization." Ann Arbor, Mich.: Institute for Social Research, University of Michigan, January, 1966.

The authors describe "utilization" as a system with both a flow structure and an administrative structure. Such a system must be open and sufficiently flexible to adjust to changes in knowledge and technology. The utilization process has motivational aspects, interpersonal and group membership issues, and technical issues.

Herzog, John D. "Viewing the Issues from the Perspective of an R & D Center." Paper read at the American Educational Research Association Symposium on Educational Improvement and the Role of Educational Research, New York, February, 1967.

The author states that Guba and Cronbach espouse what is sometimes called a "pipeline" model of educational development; Hendrik Gideonse recently dubbed it the "hypodermic" approach. Herzog lists three flawed assumptions in the Clark-Guba-Cronbach model and lists the following assumptions of his own model at Harvard:

- (1) The basic premise of Herzog's model states that the university and the school practitioner, both of whom are experts, are colleagues.
- (2) The typical practitioner wants to do a good, and perhaps even an outstanding, job.
- (3) The locus of the impetus for genuine change in the educational system resides, not in the university and not in the huckster whom Cronbach so rightly condemns, but in the individual school, and then secondarily perhaps in the individual teacher and in the school system as a whole.

Hills, Jean. "Some Problems of Educational Organization in Comparative Perspective." Paper presented at a University of Oregon Conference on New Directions in Research in Educational Administration, March, 1965. (ED 010 220)

The comparison is made on the basis of four major components of action systems:

- (1) The orientation base of the system, the needs, or interests, or values of actors that are at stake in the process.
- (2) The properties of objects in the situation that are important to actors in the light of these interests.
- (3) The normative rules discriminating between legitimate and illegitimate modes of action in pursuit of the interest in question.
- (4) The generalized facilities that actors are expected to use to implement the interest in question.

The author feels that the main emphasis of the educational system lies in pattern maintenance (serialization). The main contribution of education is therefore its ability to maintain the social patterns of a society. Schools are criticized for failing to accomplish this end rather than for producing a low-quality commodity. The structure of the educational system is geared to its role in society; a change in one will affect the other. Both talent and motivation are available, but there is a serious problem in channeling them so that they can be used by society.

Hills, Jean. "The Functions of Research for Educational Administration." Revised version of a paper presented at the National Conference on Public Administration, Kansas City, Missouri, April, 1965. (ED 010 223)

The author suggests that the improvement of education and educational administration by the implementation of research is largely a process of rationalization. She approaches this problem on three different levels:

- (1) The technical level which is concerned with means.
- (2) The administrative level which is concerned with procuring and mobilizing resources.
- (3) On both of these levels with a concern for the identification of the objective consequences of adopting certain goals and means.

Horowitz, Harold. "Can the Behavioral Sciences Assist Planning?" Address to the Second Annual Conference Society for College and University Planning, Ann Arbor, Michigan, August, 1967.

According to Horowitz, current literature emphasizes the serious problems encountered in attempting to plan well for educational change: man's limited problem-solving capabilities, the lack of comprehensive information, the cost of comprehensive analysis, the failure to achieve a consensus on goals, the difficulty in evaluating values and goals, and the inability to predict the future even as little as five years in advance.

Horvat, John J. "Content and Strategies of Communication in Current Educational Change Efforts." Paper presented at the AASA-Educational Press Association Discussion Group on Communication Strategies of Educational Change, February, 1967.

Horvat argues that the methods for achieving change have yet to be communicated. Five communication strategies for change are described: (1) written word, (2) formal meetings and conferences, (3) demonstrations, (4) training, and (5) involvement and intervention.

Horvat, John J. "Educational Improvement and the Role of Educational Administration." Paper delivered to the Collegiate Association for the Development of Educational Administration in New York State, Lake Minnewaska, New York, September, 1967.

The author explains three general reasons for the failure of the change structure in the U.S.:

- (1) The educational community in general and most professors of educational administration in particular have overemphasized the importance and utility of educational research and theory in bringing about change and improvement in education.
- (2) We are overemphasizing "things," "products," and "gimmicks," as well as research, in our efforts to bring about change.
- (3) The R & D Centers which looked so promising have emphasized almost exclusively the research aspects of their tasks and have generally been unable to make progress in the area of development.

Horvat lists four reasons for this situation:

- (1) Lack of viable alternative solutions to existing educational problems.
- (2) Lack of understanding of the educational change process.
- (3) Lack of competent personnel to study the change process, to exercise leadership in designing and mounting change programs, or to implement those programs in action.
- (4) Lack of tools and strategies through which educational improvements can be effected.

Horvat feels that there are three major options for the administrator's role in causing change to occur:

- (1) The administrator can attempt to be an active leader in bringing about change, in which case he will have little time available to be an administrator as we normally define his role.
- (2) He can assume a role in which he administers the school more or less as usual, shows fairly high interest in change, but does not spend a great deal of his time actually practicing change agency.
- (3) A third role as an impeder, or blocker, of change is possible. He argues that the second option is the one most administrators can assume.

Hosford, Ray E. "Product or Process: Implications for Decision Making." Paper presented at the American Psychological Association Meeting, Washington, D.C., September, 1967. (ED 014 111)

A good decision should be evaluated on the process used in making the decision rather than on the particular choice that is made. The basic and necessary prerequisites for scientific decision making are knowledge of the possible outcomes and the probability of success for each of the outcomes.

Jamias, Juan. "The Effects of Belief System Styles on the Communication and Adoption of Farm Practices." Unpublished doctoral dissertation, Michigan State College, 1964.

The author found a negative relationship between dogmatism and innovativeness. Highly dogmatic people were less innovative, depended more heavily upon personal than mass media communication channels, skipped the attitude change function in the innovation process, and conformed more closely to the social system norms on inventiveness.

Johnson, Homer M., George M. Carnie, and Clifford J. Lawrence. "Personality Characteristics of School Superintendents in Relation to Their Willingness to Accept Innovation in Education." Fagan, Utah: Department of Educational Administration, Utah State University, July, 1967. (ED 015 528)

Two of the major conclusions of this study are as follows:

- (1) The highly innovative superintendents are more outgoing, more assertive, more venturesome, more imaginative, more inclined to experiment, and more relaxed than the low-innovative superintendents.
- (2) There is no relationship between age of superintendent or mean years in a position and number of innovations, but there is a relationship between size of school district and degree of innovativeness.

Johnson, Laurence B. "Report of National School Public Relations Association Conference on Dissemination of Information on Newer Educational Media." Washington, D.C.: National Education Association, 1960. (ED 003 775)

This paper reports a conference whose purpose was the formulation of proposals and suggestions for a long-range information program for the encouragement and more effective use of the newer media for educational purposes.

Jung, Charles. "Some Issues Concerning Programmatic Development for Education." Portland, Oreg.: Northwest Regional Educational Laboratory (n.d.).

Development is defined as the transformation of some scientific knowledge of theory, research findings, or research methodology into a form which is capable of improving education.

Jung, Charles. "Two Kinds of Linkage for Research Utilization in Education." Paper presented at the American Educational Research Association Symposium on Training Linkage Agents for Knowledge Utilization in Education, New York, February, 1967.

Jung discusses two types of linkage. Carrier linkage trains people to train others in the use of specific innovations. Mutual bond linkage trains people to train others in identifying improvement needs and coping with them by carrying out problem solving steps which utilize research findings and skills.

Jung, Charles, and Ronald Lippitt. "Utilization of Scientific Knowledge for Change in Education." Ann Arbor, Mich.: Institute for Social Research, University of Michigan, (n. d.).

Scientific knowledge includes theory, research findings and research methodologies. Planned change is defined as the inclusion of certain basic problem-solving phases in adapting to an action concern. Each of these phases may or may not draw upon the practitioner's knowledge of educational settings and the social scientist's scientific knowledge. To the extent that they draw on the latter in creating products for the former, the process becomes one of utilizing scientific knowledge.

Kemp, Jerold E. "National Workshop on Educational Media Demonstrations." San Jose, Calif.: San Jose State College, October, 1962. (ED 003 778)

This report summarizes the procedures under which the workshop on educational media demonstrations was conducted and serves as a model for planning and executing local workshop projects.

Kramer, Edward. "Teachers' Lack of Familiarity with Research Techniques as a Problem for Effective Research Dissemination." Paper presented at the American Educational Research Association Meeting, New York, February, 1967. (ED 012 109)

This study reports that there are statistically significant differences between North Dakota educators and AERA members in attitudes toward, and in choice of, sentences which best illustrate various research procedures and terminology. It seems clear that teachers and administrators are not applying research recommendations at the pace recommended by researchers and knowledgeable educators.

Kreitlow, Burton W. "Long-Term Study of Educational Effectiveness of Newly Formed Centralized School Districts in Rural Areas." Part Two. Madison, Wis.: University of Wisconsin, July, 1964.

This study finds that reorganization can and does provide more opportunities for students. It can and does influence positively the mental development of both boys and girls. But reorganization also appears to have a less than desirable influence on the personal and social behavior of boys. The first two outcomes can be readily supported by theory; the undesirable outcome was not.

Laflant, James Clayton. "School District Innovativeness and Expectations for the School Board Role." Paper presented at the Annual Meeting of the American Educational Research Association, New York, February, 1967. (ED 013 499)

The author describes a research study of twelve Wisconsin school districts which measures the relationship between the extent of innovativeness exhibited in school districts and the degree of consensus of expectations for the school board role within and between groups of citizens, teachers, elected municipal officials, and school board members. The study concludes that a school district's innovativeness is related in a positive manner to the amount of agreement between citizens and teachers regarding their expectations for the role of the school board. Districts with high agreement between internal and external segments will adopt more innovations at an earlier date than districts lacking this agreement.

Lin, Nan. "Innovative Methods for Studying Innovation in Education and an Illustrative Analysis of Structural Effects on Innovation Diffusion within Schools." Paper presented at the National Conference on the Diffusion of Educational Ideas, East Lansing, Michigan, March 1968. (ED 017 741)

The author presents four criticisms of existing research methods and makes four suggestions for improving the research. Three research methods are recommended: field experiment, computer simulation, and structural analysis.

Lighthall, Frederick F. "Chicago COPED Activities: Some Comments on Structure, Function, and the Helping Relation." University of Chicago, (n. d.). (ED 014 100)

The author feels that the development of the project has been unplanned in important and purposeful ways and will continue to be so. To be unplanned, however, is not to be haphazard or whimsical. He discusses the conflict between interest in data and interest in client, and argues that an interest in the client precludes a line-by-line implementation of a pre-determined plan. His solution to the planning-implementation gap is very real involvement which has as its focus the collective deliberation about ends and means.

Lippitt, Ronald. "Intra-System and Inter-System Linkage Dynamics." Paper presented at the American Educational Research Association Symposium on Training Linkage Agents for Knowledge Utilization in Education, New York, February, 1967.

Lippitt suggests that any process of knowledge utilization involves the closing or bridging of two gaps: the gap between the potential consumer or adopter and the resource repository; and the gap inside the consumer or adopter system between knowledge subsystems and action subsystems. He feels that if successful internal linkage in the system is to exist, there must be linkages between the intelligence, policy making, planning and implementation subsystems.

Lippitt, Ronald, Kenneth Benne, and Ronald Havelock. "A Comparative Analysis of the Research Utilization Process." Excerpts from a Symposium sponsored by the Research Utilization Committee of the Annual Meeting of the American Educational Research Association, Chicago, February, 1966. (ED 012 503)

The authors discuss four factors that create barriers to research utilization and give particular attention to two of these barriers: the "status" barrier and the "value" barrier. They list differences between educational innovation and that in other fields:

- (1) In education, the innovation to be adopted is usually a much more complex phenomenon.
- (2) The adoption of a new model or practice usually involves a change in certain central characteristics of the practitioner.
- (3) Most successful adoptions in education require adaptation rather than pure adoption.
- (4) There is much less motivational support and cognitive input in education to stimulate the practitioner to see the need for improvement.
- (5) There is a lack of criteria for productivity; this means that the practitioner has difficulty in getting feedback about the success of his effort.
- (6) There is a conspicuous lack of trust and respect for centers of knowledge production as a relevant resource for the upgrading of practice.

Mallan, John, and Frank Creason. "Brass Ring Thinking." (n. p.), (n. n.), 1963. (ED 011 472)

The authors stress that the source of change comes from outside education and they discuss the implications of changes in society for the social science curriculum.

Mallan, John T., and Frank Creason. "Supervision: Education as a Vehicle of Social Change." (n. p.), (n. n.), (n. d.). (ED 011 473)

The authors suggest that education is a form of manipulation, since it anticipates a change in individual behavior which necessarily has social consequences. They state that since formal education is supported by public funds, it thereby justifies its inevitable impact on society. They believe that education must manifest its position as a social determinant in the curriculum, and they outline a curriculum which emphasizes the acquisition of social values and concepts.

McClelland, William A. "The Process of Effecting Change." Paper presented to the Division of Military Psychology, Division 19, of the American Psychological Association Annual Convention, San Francisco, California, September, 1968.

The author presents an excellent summary of change as a general field, drawing upon all relevant disciplines. He concludes with a discussion of two change models: the interpersonal paradigm, and the inter-organizational paradigm.

McDavid, John W. "The Evaluation of Project Head Start: A Conceptual Statement." (n. p.), (n. n.), (n. d.). (ED 015 792)

McDavid states that the effectiveness of Head Start can be judged on the basis of the relationship between cost and benefit. If the benefits can justify the cost, the program has advantages for the child as well as for his family and community. In setting up a model for the program, input (population) plus operations (program attributes) must yield output (changes in population attributes). Although a program which has as many variables as Head Start is difficult to assess, it is nevertheless possible to translate these goals into operational dimensions.

McGuire, Carson. "Research and Development Center for Teacher Education." Austin, Tex.: Research and Development Center for Teacher Education, University of Texas, 1967. (ED 013 984)

Part A of this work contains an annotated bibliography for instructors in teacher education, while Part B contains an annotated bibliography on behavioral science research.

Meierhenry, W. C. "A Criterion Paper in Parameters of Education." Paper presented to the Conference on Strategies for Educational Change, Washington, D. C., November, 1965. (ED 010 913)

The purpose of this paper is to provide a definition of the boundaries and limits which pertain to innovations in the field of education. The author discusses the philosophical dilemma of the promotion of a deliberate change. He also discusses the nature of innovations, inventors, innovators and adopters, and describes the process and tactics of diffusion. He concludes with a discussion of measurement and evaluation.

Meierhenry, W. C. "Processes and Theories of Innovation." Lincoln, Nebr.: University of Nebraska, (n. d.).

Eight models on innovation are described and discussed: Coughenour's sociology model; Brickell's model; Miles' model; Clark-Guba's model; Rogers' model; Havelock's agricultural model; Havelock's medical model; and Lippitt's knowledge utilization model.

Michaels, Joseph. "Guidelines for the Establishment of an Office for Institutional Research and Development at Pasadena City College." Los Angeles, Calif.: University of California, 1967. (ED 014 275)

Four recommendations for the establishment of a research and development office include the following:

- (1) The establishment of a program of institutional research.
- (2) The employment of a director to be a line officer reporting directly to the president.
- (3) The formulation of a minimal budget equal to one-half of 1% of the annual college expenditures.
- (4) The formation of an advisory committee composed of the college deans and the innovators.

The office has several functions:

- (1) It should stimulate and facilitate the cooperative staff planning.
- (2) It should assist staff members in their research efforts.
- (3) It should provide the collection and cataloguing of research reports and dissemination of the findings.
- (4) It should establish a research reference library.
- (5) It should provide assistance in data gathering.
- (6) It should provide information needed in decision-making.
- (7) It should operate as a liason between the college and the community.

Miles, Matthew B. "Education and Innovation: The Organization as Context." Paper presented at the Eleventh Annual Career Development Seminar, Auburn, Alabama, 1964.

Miles describes the properties of organization which relate to organization health: task accomplishment, internal integration, and mutual adaptation of the organization and its environment. Miles feels that schools follow the bureaucratic model which is inappropriate. He sees two options:

- (1) The altering of the schools' properties in some basic way so that traditional bureaucratic approaches will be more congruent with them.
- (2) The developing of alternative models of organization which are a better fit and give guidelines for improving school functioning.

Miles chooses the latter. He concludes by discussing various approaches to organizational health.

Miles, Matthew B. "Methodological Problems in Evaluating Organizational Change: Two Illustrations." Paper presented at the Foundation for Research on Human Behavior Conference at the Onchiota Conference Center, Tuxedo, New York, July, 1965.

The author explains an ambitious design for evaluating organizational change efforts: evaluation by non-participants.

Miles, Matthew B. "Training for Research Utilization." Paper prepared for the American Educational Research Association/Phi Delta Kappa Joint Study Group on the Training of Research Workers for Education, (n. d.). (ED 012 103)

The position taken here states that effort needs to be devoted to mastery of research utilization processes and skills for two basic populations: the utilization specialist situated in a wide variety of field settings, and the budding researcher as he moves through his graduate training. The author lists five research-related roles which seem to be under-conceptualized and under-filled with capable people: the educational development specialist, the field tester, the quality control man, the change agent or "catalyst", and the county agent. He then lists the role behaviors in which educational behaviors are not particularly competent.

Miller, Richard I. "An Overview of ESEA Title III." Paper presented at the President's National Advisory Council Conference on Innovation, Washington, D. C., September, 1968.

Miller states that the concept of total planning is just making its debut in education. In fact, the techniques of this procedure, growing out of military and industrial needs, are barely ten years old. The need for a more comprehensive approach to educational planning is obvious as projects become more complex, call for greater allocations of money, become larger, and continue for a longer period of time. Miller then presents an overview of Title III, explaining its evaluation and future.

Miller, Richard I. "A System Analysis of Education in Kentucky Public Schools." Paper presented at the American Educational Research Association Annual Meeting, February, 1968.

The author discusses a study of quality of education in Kentucky which applies cost-benefit and system approach to educational quality. The theoretical rationale of the study rests upon three assumptions:

- (1) The major causal or determining qualitative factors in any given school system reside in the community in which the school system is located.
- (2) The more important community determiners related to the quality of a school system are certain socio-economic factors.
- (3) The educational attainment level of the adult population is the most influential socio-economic factor.

The findings corroborate these assumptions.

Miller, Richard I. "Education and Preparation for the 21st Century." Paper presented at the Inauguration and Dedication of the Education Building at the State University of New York at Albany, November, 1967. After discussing four major national concerns and listing eight prominent educational thrusts, Miller gives twenty-three recommendations concerning the future direction for teacher education.

Miller, Richard I. "School Reorganization and the Process of Educational Change." Paper presented at the Second Annual Summer Curriculum Conference on the Emergent Middle School, Gainesville, Florida, June, 1967.

Miller feels that education serves both as a leader and a follower of society, operating somewhere between the challenge of Count's Dare the School Build a New Social Order and Commanger's "Schools reflect society"-thesis. He discusses the problem of adaptation to change and the procedures by which present practices are adjusted to advancements. He describes desirable and undesirable criteria for change, and concludes by mentioning things that can be done about change: one can ignore it; resist it; adapt and accept it with an easy, false enthusiasm under the delusion of action; or design it and thus create the future.

Nelson, R. P. "Big Technology, the Technology Gap and a Dangerous Policy Pitfall." Paper presented at the Sixth Goddard Memorial Symposium, Washington, D. C., March, 1968.

The author doubts that there is as much transferability of the results of military R & D to civilian design as might be expected.

Pellegrin, Roland J. "An Analysis of Sources and Processes of Innovation in Education." Paper presented at the Conference on Educational Change, Allerton, Illinois, February, 1966. (ED 010 228)

Pellegrin notes the importance of, and our failure to, distinguish between individuals or persons as sources of innovation and organizational sources, and between innovative or creative individuals and innovative or creative organizations. We have also confused the sources of innovation with its causes. Innovations may result from new discoveries arising out of research, or they may originate in rational analysis, deduction, speculation, dogmatic assertion, or other types of processes. Innovation depends not only upon discovery and adoption, but upon translation, implementation, experimentation, evaluation, diffusion, institutionalization, and other processes. In fact, the term "innovative" does not represent the entire range of matters that are our proper concerns of study; "change," which refers to the whole spectrum of processes from discovery to institutionalization more appropriately covers our concerns. Pellegrin lists ten sources of innovation and discusses six needed resolutions in thinking and practice. He concludes by discussing eight conditions that pose major impediments to the achievement of effective changes in education.

Pellegrin, Roland J. "Community Power Structure and Educational Decision-Making in the Local Community." Paper presented at the National Convention of the American Association of School Administrators, Atlantic City, New Jersey, February, 1965. (ED 010 218)

The author discusses the minority, top influentials, which dominates the decision-making process. In his study of three communities, the author found that the top influentials in education are persons who are involved in educational affairs by virtue of the official positions which they presently occupy or have occupied in the past. The top general influentials, who rarely rank high in educational affairs, tend to remain aloof in educational issues.

Pellegrin, Roland J. "The Center for the Advanced Study of Educational Administration." Paper presented at the American Educational Research Association Meeting, Chicago, February, 1965. (ED 011 581)

This paper describes the program of the Center for the Advanced Study of Educational Administration.

Pinney, Robert H., William Ammentorp, and David N. Evans. "Research and Development: The Reduction of Uncertainty." Paper presented at the Annual Meeting of the American Educational Research Association, Los Angeles, February, 1969.

Pinney argues that no orderly process of research through development to use exists. He describes six basic assumptions for the R & D process.

Roberts, Julian. "Needed Research in Teacher Education: Sensitivity Training and the Process of Change." Paper presented at Educational Research Association of New York and the State Education Department Convention, Albany, November, 1967. (ED 013 797)

The author recommends sensitivity training for pre-service teachers on the grounds that it facilitates the process of change by improving interaction.

Rogers, Everett M. "Toward a New Model for Educational Change." Paper presented at the Conference on Strategies for Educational Change, Washington, D.C., November, 1965.

In this paper, Rogers criticizes the exclusive concern with antecedents and correlates of educational innovativeness in the past study of educational change. A new model for educational change emphasizing the need to evaluate the consequences of innovation for teachers, learners and communities was suggested.

Rogers, Everett M., and Nemi C. Jain. "Needed Research on Diffusion within Educational Organizations." Paper presented at the National Conference on the Diffusion of Educational Ideas, East Lansing, Michigan, March, 1968. (ED 017 740)

The authors describe two important biases that diffusion researchers have implicitly adopted:

- (1) Diffusion research has largely been a tool aiding the sources, not the receivers, of innovation diffusion.
- (2) The emphasis has been placed on individual, intra-personal variables, largely to the exclusion of social structure and organizational variables.

They discuss rational analysis and structural effects analysis which are needed methodological approaches. They see the following as potential conceptual emphases in diffusion research:

- (1) Diffusion effects variables.
- (2) Communication variables.
- (3) Social system variables.
- (4) Consequences variables.

Rubin, Louis J. "The Center for Coordinated Education and Educational Change." Paper prepared for the American Educational Research Association Meeting, Chicago, February, 1968.

Rubin describes four elements upon which school improvement rests: knowledge of present conditions, knowledge of possible improvements, knowledge of available methods to improve conditions, and the desire to improve conditions. There are five assumptions which contain the rationale for the program at the Center:

- (1) Most innovations which make an authentic difference in schooling necessitate the retraining of instructional personnel.
- (2) The development of innovations does not always parallel the fundamental problems of schools.
- (3) Enough information is not available concerning the degree and kind of preparation that should precede the introduction of an innovation.
- (4) Necessary school improvements frequently are overlooked in the innovative mainstream.
- (5) Both the mechanics of the change process and the growing teacher demand for authentic involvement in instructional policy have important implications for school leadership.

He also discusses three types of projects carried on at the Center: the professional growth of school staffs; the diagnosis of school weaknesses; and the utilization of innovations.

Runkel, Philip J. "Some Recent Ideas in Research Methodology." Paper presented at the University of Oregon Conference of New Directions in Research in Educational Administration, March, 1965. (ED 010 221)
The author describes Guttman's facet design and analysis and Coombs' theory of data.

Schmidt, Les. "Planning at the Grass Roots." Speech presented at the National Outlook Conference on Rural Youth, Washington, D. C., October, 1967. (ED 014 360)

"Planning" is defined as the choice of a way of acting; this implies communication and some degree of common understanding. He argues that if planning is directed toward maximum freedom at the local level, full victory will never be won because planning is a process, always begun, but never fully achieved. Also, since its status often restricts the maximum exercise of free choice, a change in the system becomes mandatory, and this change can come about best through total process planning: i. e., through national, regional, and local participation.

Schmuck, Richard. "Social Psychological Factors in Knowledge Utilization as Applied to Educational Administration." Paper presented for the University Council for Educational Administration Career Development Seminar, Portland, Oregon, October, 1967. Also available in Knowledge Production and Utilization in Educational Administration, Terry L. Eidell and Joanne M. Kitchel (eds.). Portland, Oreg.: University Council for Educational Administration and Center for the Advanced Study of Educational Administration, University of Oregon, 1968.

The author states that researchers want to optimize while practitioners (administrators) want to suffice. He discusses three problems or gaps in the connection between research knowledge and administrative practice:

- (1) Interpersonal relationships between behavioral scientists and school administrators.
- (2) Psychological linkages between the administrator's scientific knowledge and his actions.
- (3) Lack of connection between the practitioner's action repertoire and the requirements of each natural situation as it arises.

Seashore, Charles N. "A Proposal for the Planning of One-Week Workshops in Evaluation Research for State and City Department of Education Personnel." Washington, D. C.: National Training Laboratories, October, 1966. (ED 010 230)

This report describes the planning of nine regional meetings to provide evaluation research training and it discusses issues in planning.

Seashore, Charles N. "Regional Meetings in Evaluation Research." Washington, D. C.: National Training Laboratories, October, 1966. (ED 010 229)

The author discusses methods of dealing with evaluation sections of proposals from local districts under P. L. 89-10. He feels that there is a great deal of resistance to evaluative research. Local proposals do not meet evaluation requirements, but they are approved anyway because of public demand and opinion.

Shedd, Mark R. "Remarks." Paper delivered at the Annual Spring Conference, The Philadelphia Principals Association, Philadelphia, Pennsylvania, June, 1967. (ED 019 324)

Within the context of a recommendation for decentralization, Shedd describes P. S. 192M in Harlem which is administered by an independent principal who is the key figure in determining the quality of education his students receive.

Sieber, Sam D. "Organizational Resistances to Innovative Roles in Educational Organizations." Paper prepared for the University Center for Educational Administration Career Development Seminar, Portland, Oregon, October, 1967. (ED 015 536) Also available in Knowledge Production and Utilization in Educational Administration, Terry L. Eidell and Joanne M. Kitchel (eds.). Portland, Oreg.: University Council for Educational Administration and Center for the Advanced Study of Educational Administration, University of Oregon, 1968.

Sieber explains why the work of such men as Rogers and Mort has limited application in delineating concrete processes and hindrances to educational change. He discusses four distinctive features of the educational system and their implications for innovation: vulnerability, quasi-professionalism, goal-diffuseness,

and formal coordination and control. He suggests that rational man, cooperation and powerless participant approaches to educational change must be encompassed in one strategy.

Small, George D. "What We Have Learned from Current Programs and Research about Disadvantaged Pre-School and Elementary School Children?" Tulsa, Okla.: University of Tulsa, (n. d.). (ED 014 744)

The author feels that there are three types of programs in operation:

- (1) Those which follow traditional educational patterns and practices.
- (2) Those which follow traditional educational patterns and practices, but with some modifications or innovations.
- (3) Those which are highly innovative in character.

He states that programs of the third type are rare, and that innovative ideas require the kind of specialized personnel that are not only hard to find, but also difficult to train. Thus, most school personnel have not been up to the task. The author found very few programs centering on any single lack in the disadvantaged youngster's development that have helped these children appreciably, and argues that there must be a broader approach.

Smith, Gerald R. "An Analysis of Research on Decision Situations and Processes." Paper presented at the Meeting of American Educational Research Association, February, 1967.

The author makes the following observations:

- (1) The advantages of decision studies in natural settings must be built into studies in artificial settings and vice versa.
- (2) The research has not attempted systematic variation of the decision situation.
- (3) Little research has been done on the awareness stage of the decision process.
- (4) Research has not examined the plurality of roles and processes that make up the decision process.
- (5) The concept of sequence in decision-making needs to be examined more fully than it had been in the past.

"Some Propositions of Research Utilization in Education." Paper prepared for the Meeting of the Committee on Research Utilization of the American Educational Research Association, March, 1965.

This paper defines various terms and puts forth propositions on research, invention, adoption, etc.

Stanfield, J. David, Nan Lin, and Everett M. Rogers. "Simulation of Innovation Diffusion." East Lansing, Mich.: Michigan State University, 1965.

The authors discuss computer simulation of innovation diffusion. They argue that the researcher should fuse the stationary analysis of the diffusion process at one point in time with time consid-

erations through computer simulation.

Sweigert, Ray L. Jr. "Need Assessment --- The First Step toward Deliberate Rather than Impulsive Response to Problems." Paper presented at a Conference of the Interstate Project for State Planning and Program Consolidation, San Francisco, California, April, 1968.

The author defines planning as a form of information gathering and processing for the purpose of decision-making. He differentiates between need assessment and planning on the basis that the former is concerned with identifying and documenting needs while the latter is concerned with the identification and documentation of alternative solutions. A need assessment is made to enable a legally responsible policy-making body to establish priorities among needs, thereby giving direction to planning. The planning in turn should provide a basis for allocating discretionary resources. The basis for allocation has to do with improving the existing ratio of student benefits that have been set. The statement of need is concerned with student needs, not institutional needs. Institutional needs are dealt with in planning a solution, not in need assessment. The author concludes by listing five characteristics of a statement of need.

Tarcher, Martin. "Leadership: Organization and Structure." Paper delivered at the Twenty-Second National Conference on Higher Education, Chicago, Illinois, March, 1967. (ED 013 487)

According to Tarcher, the American society needs specialists who can coordinate data and theory from their various disciplines within the boundaries of our social system. Institutions of higher learning must discover that the most effective teaching and learning are the result of involvement in research, not of the describing of present situations.

Thomas, Edwin J. "The Socio-Behavioral Approach: Illustrations and Analysis." (n. p.), (n. n.), (n. d.). (ED 014 729)

The author discusses three requisites of socio-behavioral knowledge:

- (1) Relevance to behavioral maintenance or change. Problems of change can be specified more precisely as involving either the acquisition, strengthening, weakening or elimination of behavior.
- (2) Empirical support.
- (3) Operationality in action.

The two requisites of socio-behavioral practice which are also discussed are implementation of socio-behavioral knowledge and behavioral specifications of the relevant activities for achieving stabilization and change.

Vincent, Howard L. "Selected Bibliography: Application of Economic Analysis and Operations Research to Problems in Educational Planning." Washington,

D. C.: National Center for Educational Statistics, Division of Operations Analysis, July, 1966. (ED 014 129)

This article contains a selected bibliography of relevant books and journal articles in the field.

Wallach, Michael A., Nathan Kogan, and Robert B. Burk. "Are Risk-Takers More Persuasive Than Conservatives in Group Discussion?" Paper presented at the American Psychological Association Convention, Washington, D. C., September, 1967. (ED 015 502)

This study investigates whether the phenomenon of shifts toward greater risk-taking following the discussion of risk-related materials can be attributed to greater general persuasiveness exerted by risk-takers than by conservatives. Its procedure tries to discover whether risk-takers would be judged more persuasive than conservatives following the discussion of risk-neutral materials. Risk-takers are judged slightly more persuasive than conservatives in the case of female discussion groups, but not at all in the case of male groups. The study concludes that the risky-shift phenomenon cannot be attributed to greater persuasiveness as a general characteristic of high risk-takers in male groups, while this factor can play no more than a small role in female groups.

Wallin, Herman Arnold. "Incentive Systems in Educational Organizations: A Look at Two Types and Their Approach Impact upon Skill Maintenance Activities of the Professional Work Force." Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, Illinois, February, 1966. (ED 010 222)

This reports a study of two junior colleges, one using a merit pay system and one not using such a system. The study found that on the basis of subscribing to and reading relevant journals, engaging in formal studies, and participating in conferences and seminars, the people in the college with the merit system exhibited a greater commitment to maintaining their expertise.

Wardrop, James L., et al. "A Plan for Field Testing R & I Units." Madison, Wis.: Research and Development Center for Cognitive Learning, University of Wisconsin, February, 1967. (ED 016 011)

Three main functions of research and innovation units are the development and maintenance of a model child-instruction program, continuous improvement of such a program through innovation, development and research, and the diffusion of desirable educational practices throughout the school plant and then on a more general level.

Williams, Richard P. "Applying Research Findings in Comprehension to Classroom Practice." Paper presented at the International Reading Association Conference, Seattle, Washington, May, 1967. (ED 014 387)

Research shows that, in spite of a favorable attitude toward scientific research, a gap exists between the initiation of an innovation and its wide acceptance. To help close this gap, teachers are encouraged to apply research findings to classroom practice and to determine their feasibility. The author cites sixteen studies on comprehension to illustrate the kind of inferences teachers could use.

Wilson, Celianna I. "Information Systems: A Vehicle for Diffusion of Educational Ideas." Paper presented at the National Conference on The Diffusion of Educational Ideas, East Lansing, Michigan, March, 1968. (ED 017 742)

The study discusses four factors which have significant bearing on the diffusion of ideas, but which have not received adequate attention:

- (1) The organization of knowledge so that alternative concepts can be located.
- (2) The identification of user groups of information and their information needs.
- (3) The extensiveness of diffusion on information within these user groups and the degree of penetration through various dissemination techniques.
- (4) Feedback techniques on the effectiveness of the concepts disseminated.

Zeigler, Harmon. "Political Values in Education." Paper presented at a University of Oregon Conference on New Directions in Research in Educational Administration, March, 1965. (ED 010 222)

After discussing the political system and the educational subsystem, the author concludes that educational institutions tend to mirror the political environment in which they find themselves and therefore do not, because of their very nature, contribute to political change.

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